

Claims

1. A method for the detection of drink-spoiling microorganisms in a sample, whereby the detection is carried out by using at least one oligonucleotide probe
5 having a nucleic acid sequence selected from the group consisting of (all sequences in 5' → 3' direction):

	SEQ ID No. 1:	5'- GTTTGACCAGATTCTCCGCTC
	SEQ ID No. 5:	5'- CCCGGTCGAATTAAAACC
10	SEQ ID No. 6:	5'- GCCCGGTCGAATTAAAAC
	SEQ ID No. 7:	5'- GGCCCGGTCGAATTAAAA
	SEQ ID No. 8:	5'- AGGCCCGGTCGAATTAAA
	SEQ ID No. 9:	5'- AAGGCCCGGTCGAATTAA
	SEQ ID No. 10:	5'- ATATTTCGAGCGAAACGCC
15	SEQ ID No. 11:	5'- AAAGATCCGGACCGGCCG
	SEQ ID No. 12	5'- GGAAAGATCCGGACCGGC
	SEQ ID No. 13	5'- GAAAGATCCGGACCGGCC
	SEQ ID No. 14	5'- GATCCGGACCGGCCGACC
	SEQ ID No. 15	5'- AGATCCGGACCGGCCGAC
20	SEQ ID No. 16	5'- AAGATCCGGACCGGCCGA
	SEQ ID No. 17	5'- GAAAGGCCCGGTCGAATT
	SEQ ID No. 18	5'- AAAGGCCCGGTCGAATTA
	SEQ ID No. 19	5'- GGAAAGGCCCGGTCGAAT
	SEQ ID No. 20	5'- AGGAAAGGCCCGGTCGAA
25	SEQ ID No. 21	5'- AAGGAAAGGCCCGGTCGA
	SEQ ID No. 22:	5'- ATAGCACTGGGATCCTCGCC
	SEQ ID No. 23:	5'- CCAGCCCCAAAGTTACCTTC
	SEQ ID No. 24:	5'- TCCTTGACGTAAAGTCGCAG
	SEQ ID No. 25:	5'- GGAAGAAAACCAGTACGC
30	SEQ ID No. 26:	5'- CCGGTCGGAAGAAAACCA

	SEQ ID No. 27:	5'- GAAGAAAACCAAGTACGCG
	SEQ ID No. 28:	5'- CCCGGTCGGAAGAAAACC
	SEQ ID No. 29:	5'- CGGTCGGAAGAAAACCAAG
	SEQ ID No. 30:	5'- GGTCGGAAGAAAACCAAGT
5	SEQ ID No. 31:	5'- AAGAAAACCAAGTACGCGG
	SEQ ID No. 32:	5'- GTACGCGGAAAAATCCGG
	SEQ ID No. 33:	5'- AGTACGCGGAAAAATCCG
	SEQ ID No. 34:	5'- GCGGAAAAATCCGGACCG
	SEQ ID No. 35:	5'- CGGAAGAAAACCAAGTACG
10	SEQ ID No. 36:	5'- GCCCGGTCGGAAGAAAAC
	SEQ ID No. 37:	5'- CGCGGAAAAATCCGGACC
	SEQ ID No. 38:	5'- CAGTACGCGGAAAAATCC
	SEQ ID No. 39:	5'- AGAAAACCAAGTACGCGGA
	SEQ ID No. 40:	5'- GGCCCGGTCGGAAGAAAA
15	SEQ ID No. 41:	5'- ATAAACACCACCCGATCC
	SEQ ID No. 42:	5'- ACGCGGAAAAATCCGGAC
	SEQ ID No. 43:	5'- GAGAGGCCCGGTCGGAAG
	SEQ ID No. 44:	5'- AGAGGCCCGGTCGGAAGA
	SEQ ID No. 45:	5'- GAGGCCCGGTCGGAAGAA
20	SEQ ID No. 46:	5'- AGGCCCGGTCGGAAGAAA
	SEQ ID No. 47:	5'- CCGAGTGGGTCAGTAAAT
	SEQ ID No. 48:	5'- CCAGTACGCGGAAAAATC
	SEQ ID No. 49:	5'- TAAACACCACCCGATCCC
	SEQ ID No. 50:	5'- GGAGAGGCCCGGTCGGAA
25	SEQ ID No. 51:	5'- GAAAACCAAGTACGCGGAA
	SEQ ID No. 52:	5'- TACGCGGAAAAATCCGGA
	SEQ ID No. 53:	5'- GGCCACAGGGACCCAGGG
	SEQ ID No. 54:	5'- TCACCAAGGGCCACAGGG
	SEQ ID No. 55:	5'- GGGCCACAGGGACCCAGG
30	SEQ ID No. 56:	5'- TTCACCAAGGGCCACAGG

	SEQ ID No. 57:	5'- ACAGGGACCCAGGGCTAG
	SEQ ID No. 58:	5'- AGGGCCACAGGGACCCAG
	SEQ ID No. 59:	5'- GTTCACCAAGGGCCACAG
	SEQ ID No. 60:	5'- GCCACAGGGACCCAGGGC
5	SEQ ID No. 61:	5'- CAGGGACCCAGGGCTAGC
	SEQ ID No. 62:	5'- AGGGACCCAGGGCTAGCC
	SEQ ID No. 63:	5'- ACCAAGGGCCACAGGGAC
	SEQ ID No. 64:	5'- CCACAGGGACCCAGGGCT
	SEQ ID No. 65:	5'- CACAGGGACCCAGGGCTA
10	SEQ ID No. 66:	5'- CACCAAGGGCCACAGGGA
	SEQ ID No. 67:	5'- GGGACCCAGGGCTAGCCA
	SEQ ID No. 68:	5'- AGGAGAGGCCCGGTCGGA
	SEQ ID No. 69:	5'- AAGGAGAGGCCCGGTCGG
	SEQ ID No. 70:	5'- GAAGGAGAGGCCCGGTCG
15	SEQ ID No. 71:	5'- AGGGCTAGCCAGAAGGAG
	SEQ ID No. 72:	5'- GGGCTAGCCAGAAGGAGA
	SEQ ID No. 73:	5'- AGAAGGAGAGGCCCGGTC
	SEQ ID No. 74:	5'- CAAGGGCCACAGGGACCC
	SEQ ID No. 75:	5'- CCAAGGGCCACAGGGACC
20	SEQ ID No. 76:	5'- GTCGGAAAAACCAAGTACG
	SEQ ID No. 77:	5'- GCCCGGTCGGAAAAACCA
	SEQ ID No. 78:	5'- CCGGTCGGAAAAACCAAGT
	SEQ ID No. 79:	5'- CCCGGTCGGAAAAACCAAG
	SEQ ID No. 80:	5'- TCGGAAAAACCAAGTACGC
25	SEQ ID No. 81:	5'- CGGAAAAACCAAGTACGCG
	SEQ ID No. 82:	5'- GGAAAAACCAAGTACGCGG
	SEQ ID No. 83:	5'- GTACGCGGAAAAATCCGG
	SEQ ID No. 84:	5'- AGTACGCGGAAAAATCCG
	SEQ ID No. 85:	5'- GCGGAAAAATCCGGACCG
30	SEQ ID No. 86:	5'- GGTCGGAAAAACCAAGTAC

	SEQ ID No. 87:	5'- ACTCCTAGTGGTGCCCTT
	SEQ ID No. 88:	5'- GCTCCACTCCTAGTGGTG
	SEQ ID No. 89:	5'- CACTCCTAGTGGTGCCCT
	SEQ ID No. 90:	5'- CTCCACTCCTAGTGGTGC
5	SEQ ID No. 91:	5'- TCCACTCCTAGTGGTGCC
	SEQ ID No. 92:	5'- CCACTCCTAGTGGTGCCC
	SEQ ID No. 93:	5'- GGCTCCACTCCTAGTGGT
	SEQ ID No. 94:	5'- AGGCTCCACTCCTAGTGG
	SEQ ID No. 95:	5'- GGCCCGGTCGGAAAAACC
10	SEQ ID No. 96:	5'- GAAAAACCAAGTACGCGGA
	SEQ ID No. 97:	5'- CGCGGAAAAATCCGGACC
	SEQ ID No. 98:	5'- CAGTACGCGGAAAAATCC
	SEQ ID No. 99:	5'- CGGTCGGAAAAACCAAGTA
	SEQ ID No. 100:	5'- AAGGCCCGGTCGGAAAAA
15	SEQ ID No. 101:	5'- CAGGCTCCACTCCTAGTG
	SEQ ID No. 102:	5'- CTCCTAGTGGTGCCCTTC
	SEQ ID No. 103:	5'- TCCTAGTGGTGCCCTTCC
	SEQ ID No. 104:	5'- GCAGGCTCCACTCCTAGT
	SEQ ID No. 105:	5'- AGGCCCGGTCGGAAAAAC
20	SEQ ID No. 106:	5'- ACGCGGAAAAATCCGGAC
	SEQ ID No. 107:	5'- CCAGTACGCGGAAAAATC
	SEQ ID No. 108:	5'- CTAGTGGTGCCCTTCGCT
	SEQ ID No. 109:	5'- GAAAGGCCCGGTCGGAAA
	SEQ ID No. 110:	5'- AAAGGCCCGGTCGGAAAA
25	SEQ ID No. 111:	5'- TACGCGGAAAAATCCGGA
	SEQ ID No. 112:	5'- GGAAAGGCCCGGTCGGAA
	SEQ ID No. 113:	5'- ATCTCTTCCGAAAGGTCG
	SEQ ID No. 114:	5'- CATCTCTTCCGAAAGGTC
	SEQ ID No. 115:	5'- CTCTTCCGAAAGGTCGAG
30	SEQ ID No. 116:	5'- CTTCCGAAAGGTCGAGAT

	SEQ ID No. 117:	5'- TCTCTTCCGAAAGGTCGA
	SEQ ID No. 118:	5'- TCTTCCGAAAGGTCGAGA
	SEQ ID No. 119:	5'- CCTAGTGGTGCCCTTCCG
	SEQ ID No. 120:	5'- TAGTGGTGCCCTTCCGTC
5	SEQ ID No. 121:	5'- AGTGGTGCCCTTCCGTCA
	SEQ ID No. 122:	5'- GCCAAGGTTAGACTCGTT
	SEQ ID No. 123:	5'- GGCCAAGGTTAGACTCGT
	SEQ ID No. 124:	5'- CCAAGGTTAGACTCGTTG
	SEQ ID No. 125:	5'- CAAGGTTAGACTCGTTGG
10	SEQ ID No. 126:	5'- AAGGTTAGACTCGTTGGC
	SEQ ID No. 127:	5'- CTCGCCTCACGGGGTTCTCA
	SEQ ID No. 128:	5'- GGCCCGGTCGAAATTAAA
	SEQ ID No. 129:	5'- AGGCCCGGTCGAAATTAA
	SEQ ID No. 130:	5'- AAGGCCCGGTCGAAATTA
15	SEQ ID No. 131:	5'- AAAGGCCCGGTCGAAATT
	SEQ ID No. 132:	5'- GAAAGGCCCGGTCGAAAT
	SEQ ID No. 133:	5'- ATATTCGAGCGAAACGCC
	SEQ ID No. 134:	5'- GGAAAGGCCCGGTCGAAA
	SEQ ID No. 135:	5'- AAAGATCCGGACCGGCCG
20	SEQ ID No. 136:	5'- GGAAAGATCCGGACCGGC
	SEQ ID No. 137:	5'- GAAAGATCCGGACCGGCC
	SEQ ID No. 138:	5'- GATCCGGACCGGECGAEC
	SEQ ID No. 139:	5'- AGATCCGGACCGGCCGAC
	SEQ ID No. 140:	5'- AAGATCCGGACCGGCCGA
25	SEQ ID No. 141:	5'- AGGAAAGGCCCGGTCGAA
	SEQ ID No. 142:	5'- AAGGAAAGGCCCGGTCGA
	SEQ ID No. 143:	5'-CGAGCAAAACGCCTGCTTTG
	SEQ ID No. 144:	5'-CGCTCTGAAAGAGAGTTGCC
	SEQ ID No. 145:	5'-AGTTGCCCCCTACACTAGAC..
30	SEQ ID No. 146:	5'-GCTTCTCCGTCCCGCGCCG

	SEQ ID No. 148:	5'- CCTGGTTCGCCAAAAAGGC
	SEQ ID No. 149:	5'-GATTCTCGGCCCCATGGG
	SEQ ID No. 150:	5'- ACCCTCTACGGCAGCCTGTT
	SEQ ID No. 151:	5'- GATCGGTCTCCAGCGATTCA
5	SEQ ID No. 152:	5'- ACCCTCCACGGCGGCCTGTT
	SEQ ID No. 153:	5'- GATTCTCCGCGCCATGGG
	SEQ ID No. 154:	5'- TCATCAGACGGGATTCTCAC
	SEQ ID No. 157:	5'-AGTTGCCCCCTCCTCTAAGC
	SEQ ID No. 158:	5'-CTGCCACAAGGACAAATGGT
10	SEQ ID No. 159:	5'-TGCCCCCTCTTCTAAGCAAAT
	SEQ ID No. 160:	5'-CCCCAAAGTTGCCCTCTC
	SEQ ID No. 163:	5'-AAGACCAGGCCACCTCAT
	SEQ ID No. 164:	5'- CATCATAGAACACCGTCC
	SEQ ID No. 165:	5'- CCTTCCGAAGTCGAGGTTTT
15	SEQ ID No. 166:	5'- GGGAGTGTTGCCAACTC
	SEQ ID No. 167:	5'- AGCGGTCGTTCGCAACCCT
	SEQ ID No. 168:	5'- CCGAAGTCGGGGTTTTGCGG
	SEQ ID No. 169:	5'- GATAGCCGAAACCACCTTTC
	SEQ ID No. 170:	5'- GCCGAAACCACCTTTCAAAC
20	SEQ ID No. 171:	5'- GTGATAGCCGAAACCACCTT
	SEQ ID No. 172:	5'- AGTGATAGCCGAAACCACCT
	SEQ ID No. 173:	5'- TTTAACGGGATGCGTTCGAG
	SEQ ID No. 174:	5'- AAGTGATAGCCGAAACCACC
	SEQ ID No. 175:	5'- GGTTGAATACCGTCAACGTC
25	SEQ ID No. 176:	5'- GCACAGTATGTCAAGACCTG
	SEQ ID No. 177:	5'- CATCCGATGTGCAAGCACTT
	SEQ ID No. 178:	5'- TCATCCGATGTGCAAGCACT
	SEQ ID No. 179:	5'- CCGATGTGCAAGCACTTCAT
	SEQ ID No. 180:	5'- CCACTCATCCGATGTGCAAG
30	SEQ ID No. 181:	5'- GCCACAGTTCGCCACTCATC

	SEQ ID No. 182:	5'- CCTCCGCGTTTGTCAACGGC
	SEQ ID No. 183:	5'- ACCAGTTCGCCACAGTTCGC
	SEQ ID No. 184:	5'- CACTCATCCGATGTGCAAGC
	SEQ ID No. 185:	5'- CCAGTTCGCCACAGTTCGCC
5	SEQ ID No. 186:	5'- CTCATCCGATGTGCAAGCAC
	SEQ ID No. 187:	5'- TCCGATGTGCAAGCACTTCA
	SEQ ID No. 188:	5'- CGCCACTCATCCGATGTGCA
	SEQ ID No. 189:	5'- CAGTTCGCCACAGTTCGCCA
	SEQ ID No. 190:	5'- GCCACTCATCCGATGTGCAA
10	SEQ ID No. 191:	5'- CGCCACAGTTCGCCACTCAT
	SEQ ID No. 192:	5'- ATCCGATGTGCAAGCACTTC
	SEQ ID No. 193:	5'- GTTCGCCACAGTTCGCCACT
	SEQ ID No. 194:	5'- TCCTCCGCGTTTGTCAACGG
	SEQ ID No. 195:	5'- CGCCAGGGTTCATCCTGAGC
15	SEQ ID No. 196:	5'- AGTTCGCCACAGTTCGCCAC
	SEQ ID No. 197:	5'- TCGCCACAGTTCGCCACTCA
	SEQ ID No. 198:	5'- TTAACGGGATGCGTTCGACT
	SEQ ID No. 199:	5'- TCGCCACTCATCCGATGTGC
	SEQ ID No. 200:	5'- CCACAGTTCGCCACTCATCC
20	SEQ ID No. 201:	5'- GATTTAACGGGATGCGTTTCG
	SEQ ID No. 202:	5'- TAACGGGATGCGTTCGACTT ---
	SEQ ID No. 203:	5'- AACGGGATGCGTTCGACTTG ---
	SEQ ID No. 204:	5'- CGAAGGTTACCGAACCGACT
	SEQ ID No. 205:	5'- CCGAAGGTTACCGAACCGAC
25	SEQ ID No. 206:	5'- CCCGAAGGTTACCGAACCGA
	SEQ ID No. 207:	5'- TTCCTCCGCGTTTGTCAACCG
	SEQ ID No. 208:	5'- CCGCCAGGGTTCATCCTGAG
	SEQ ID No. 209:	5'- TCCTTCCAGAAGTGATAGCC
	SEQ ID No. 210:	5'- CACCAGTTCGCCACAGTTCG
30	SEQ ID No. 211:	5'- ACGGGATGCGTTCGACTTGC ---

	SEQ ID No. 212:	5'- GTCCTTCCAGAAGTGATAGC
	SEQ ID No. 213:	5'- GCCAGGGTTCATCCTGAGCC
	SEQ ID No. 214:	5'- ACTCATCCGATGTGCAAGCA
	SEQ ID No. 215:	5'- ATCATTGCCTTGGTGAACCG
5	SEQ ID No. 216:	5'- TCCGCGTTTGTACACCGGCAG
	SEQ ID No. 217:	5'- TGAACCGTTACTCCACCAAC
	SEQ ID No. 218:	5'- GAAGTGATAGCCGAAACCAC
	SEQ ID No. 219:	5'- CCGCGTTTGTACACCGGCAGT
	SEQ ID No. 220:	5'- TTCGCCACTCATCCGATGTG
10	SEQ ID No. 221:	5'- CATTTAACGGGATGCGTTCG
	SEQ ID No. 222:	5'- CACAGTTCGCCACTCATCCG
	SEQ ID No. 223:	5'- TTCGCCACAGTTCGCCACTC
	SEQ ID No. 224:	5'- CTCCGCGTTTGTACACCGGCA
	SEQ ID No. 225:	5'- ACGCCGCCAGGGTTCATCCT
15	SEQ ID No. 226:	5'- CCTTCCAGAAGTGATAGCCG
	SEQ ID No. 227:	5'- TCATTGCCTTGGTGAACCGT
	SEQ ID No. 228:	5'- CACAGTATGTCAAGACCTGG
	SEQ ID No. 229:	5'- TTGGTGAACCGTTACTCCAC
	SEQ ID No. 230:	5'- CTTGGTGAACCGTTACTCCA
20	SEQ ID No. 231:	5'- GTGAACCGTTACTCCACCAA
	SEQ ID No. 232:	5'- GGCTCCCGAAGGTTACCGAA
	SEQ ID No. 233:	5'- GAAGGTTACCGAACCGAGTT
	SEQ ID No. 234:	5'- TGGCTCCCGAAGGTTACCGA
	SEQ ID No. 235:	5'- TAATACGCCGCGGGTCCTTC
25	SEQ ID No. 236:	5'- GAACCGTTACTCCACCAACT
	SEQ ID No. 237:	5'- TACGCCGCGGGTCCTTCCAG
	SEQ ID No. 238:	5'- TCACCAGTTCGCCACAGTTC
	SEQ ID No. 239:	5'- CCTTGGTGAACCGTTACTCC
	SEQ ID No. 240:	5'- CTCACCAGTTCGCCACAGTT
30	SEQ ID No. 241:	5'- CGCCGCCAGGGTTCATCCTG

SEQ ID No. 242: 5'- CCTTGGTGAACCATTACTCC
SEQ ID No. 243: 5'- TGGTGAACCATTACTCCACC
SEQ ID No. 244: 5'- GCCGCCAGGGTTCATCCTGA
SEQ ID No. 245: 5'- GGTGAACCATTACTCCACCA
5 SEQ ID No. 246: 5'- CCAGGGTTCATCCTGAGCCA
SEQ ID No. 247: 5'- AATACGCCGCGGGTCCTTCC
SEQ ID No. 248: 5'- CACGCCGCCAGGGTTCATCC
SEQ ID No. 249: 5'- AGTTCGCCACTCATCCGATG
SEQ ID No. 250: 5'- CGGGATGCGTTCGACTTGCA
10 SEQ ID No. 251: 5'- CATTGCCTTGGTGAACCGTT
SEQ ID No. 252: 5'- GCACGCCGCCAGGGTTCATC
SEQ ID No. 253: 5'- CTTCTCCGCGTTTGTCAACC
SEQ ID No. 254: 5'- TGGTGAACCGTTACTCCACC
SEQ ID No. 255: 5'- CCTTCCTCCGCGTTTGTCAAC
15 SEQ ID No. 256: 5'- ACGCCGCGGGTCCTTCCAGA
SEQ ID No. 257: 5'- GGTGAACCGTTACTCCACCA
SEQ ID No. 258: 5'- GGGTCCTTCCAGAAGTGATA
SEQ ID No. 259: 5'- CTTCCAGAAGTGATAGCCGA
SEQ ID No. 260: 5'- GCCTTGGTGAACCATTACTC
20 SEQ ID No. 261: 5'- ACAGTTCGCCACTCATCCGA
SEQ ID No. 262: 5'- ACCTTCCTCCGCGTTTGTCA
SEQ ID No. 263: 5'- CGAACCGACTTTGGGTGTTG
SEQ ID No. 264: 5'- GAACCGACTTTGGGTGTTGC
SEQ ID No. 265: 5'- AGGTTACCGAACCGACTTTG
25 SEQ ID No. 266: 5'- ACCGAACCGACTTTGGGTGT
SEQ ID No. 267: 5'- TTACCGAACCGACTTTGGGT
SEQ ID No. 268: 5'- TACCGAACCGACTTTGGGTG
SEQ ID No. 269: 5'- GTTACCGAACCGACTTTGGG
SEQ ID No. 270: 5'- CCTTTCTGGTATGGTACCGTC
30 SEQ ID No. 271: 5'- TGCACCGCGGAYCCATCTCT

SEQ ID No. 272: 5'- AGTTGCAGTCCAGTAAGCCG
SEQ ID No. 273: 5'- GTTGCAGTCCAGTAAGCCGC
SEQ ID No. 274: 5'- CAGTTGCAGTCCAGTAAGCC
SEQ ID No. 275: 5'- TGCAGTCCAGTAAGCCGCCT
5 SEQ ID No. 276: 5'- TCAGTTGCAGTCCAGTAAGC
SEQ ID No. 277: 5'- TTGCAGTCCAGTAAGCCGCC
SEQ ID No. 278: 5'- GCAGTCCAGTAAGCCGCCTT
SEQ ID No. 279: 5'- GTCAGTTGCAGTCCAGTAAG
SEQ ID No. 280: 5'- CTCTAGGTGACGCCGAAGCG
10 SEQ ID No. 281: 5'- ATCTCTAGGTGACGCCGAAG
SEQ ID No. 282: 5'- TCTAGGTGACGCCGAAGCGC
SEQ ID No. 283: 5'- TCTCTAGGTGACGCCGAAGC
SEQ ID No. 284: 5'- CCATCTCTAGGTGACGCCGA
SEQ ID No. 285: 5'- CATCTCTAGGTGACGCCGAA
15 SEQ ID No. 286: 5'- TAGGTGACGCCGAAGCGCCT
SEQ ID No. 287: 5'- CTAGGTGACGCCGAAGCGCC
SEQ ID No. 288: 5'- CTTAGACGGCTCCTTCCTAA
SEQ ID No. 289: 5'- CCTTAGACGGCTCCTTCCTA
SEQ ID No. 290: 5'- ACGTCAGTTGCAGTCCAGTA
20 SEQ ID No. 291: 5'- CGTCAGTTGCAGTCCAGTAA
SEQ ID No. 292: 5'- ACGCCGAAGCGCCTTTTAAC
SEQ ID No. 293: 5'- GACGCCGAAGCGCCTTTTAA
SEQ ID No. 294: 5'- GCCGAAGCGCCTTTTAACTT
SEQ ID No. 295: 5'- CGCCGAAGCGCCTTTTAACT
25 SEQ ID No. 296: 5'- GTGACGCCGAAGCGCCTTTT
SEQ ID No. 297: 5'- TGACGCCGAAGCGCCTTTTA
SEQ ID No. 298: 5'- AGACGGCTCCTTCCTAAAAG
SEQ ID No. 299: 5'- ACGGCTCCTTCCTAAAAGGT
SEQ ID No. 300: 5'- GACGGCTCCTTCCTAAAAGG
30 SEQ ID No. 301: 5'- CCTTCCTAAAAGGTTAGGCC

	SEQ ID No. 302:	5'- GGTGACGCCAAAGCGCCTTT
	SEQ ID No. 303:	5'- AGGTGACGCCAAAGCGCCTT
	SEQ ID No. 304:	5'- TAGGTGACGCCAAAGCGCCT
	SEQ ID No. 305:	5'- CTCTAGGTGACGCCAAAGCG
5	SEQ ID No. 306:	5'- TCTAGGTGACGCCAAAGCGC
	SEQ ID No. 307:	5'- CTAGGTGACGCCAAAGCGCC
	SEQ ID No. 308:	5'- ACGCCAAAGCGCCTTTTAAC
	SEQ ID No. 309:	5'- CGCCAAAGCGCCTTTTAACT
	SEQ ID No. 310:	5'- TGACGCCAAAGCGCCTTTTA
10	SEQ ID No. 311:	5'- TCTCTAGGTGACGCCAAAGC
	SEQ ID No. 312:	5'- GTGACGCCAAAGCGCCTTTT
	SEQ ID No. 313:	5'- GACGCCAAAGCGCCTTTTAA
	SEQ ID No. 314:	5'- ATCTCTAGGTGACGCCAAAG
	SEQ ID No. 315:	5'- CATCTCTAGGTGACGCCAAA
15	SEQ ID No. 316:	5'- TCCATCTCTAGGTGACGCCA
	SEQ ID No. 317:	5'- CCATCTCTAGGTGACGCCAA
	SEQ ID No. 318:	5'- CTGCCTTAGACGGCTCCCCC
	SEQ ID No. 319:	5'- CCTGCCTTAGACGGCTCCCC
	SEQ ID No. 320:	5'- GTGTCATGCGACACTGAGTT
20	SEQ ID No. 321:	5'- TGTGTCATGCGACACTGAGT
	SEQ ID No. 322:	5'- CTTTGTGTCATGCGACACTG
	SEQ ID No. 323:	5'- TTGTGTCATGCGACACTGAG
	SEQ ID No. 324:	5'- TGCCTTAGACGGCTCCCCCT
	SEQ ID No. 325:	5'- AGACGGCTCCCCCTAAAAGG
25	SEQ ID No. 326:	5'- TAGACGGCTCCCCCTAAAAG
	SEQ ID No. 327:	5'- GCCTTAGACGGCTCCCCCTA
	SEQ ID No. 328:	5'- GCTCCCCCTAAAAGGTTAGG
	SEQ ID No. 329:	5'- GGCTCCCCCTAAAAGGTTAG
	SEQ ID No. 330:	5'- CTCCCCCTAAAAGGTTAGGC
30	SEQ ID No. 331:	5'- TCCCCCTAAAAGGTTAGGCC

SEQ ID No. 332: 5'- CCCTAAAAGGTTAGGCCACC
SEQ ID No. 333: 5'- CCCCTAAAAGGTTAGGCCAC
SEQ ID No. 334: 5'- CGGCTCCCCCTAAAAGGTTA
SEQ ID No. 335: 5'- CCCCCTAAAAGGTTAGGCCA
5 SEQ ID No. 336: 5'- CTTAGACGGCTCCCCCTAAA
SEQ ID No. 337: 5'- TTAGACGGCTCCCCCTAAAA
SEQ ID No. 338: 5'- GGGTTCGCAACTCGTTGTAT
SEQ ID No. 339: 5'- CCTTAGACGGCTCCCCCTAA
SEQ ID No. 340: 5'- ACGGCTCCCCCTAAAAGGTT
10 SEQ ID No. 341: 5'- GACGGCTCCCCCTAAAAGGT
SEQ ID No. 342: 5'- ACGCCGCAAGACCATCCTCT
SEQ ID No. 343: 5'- CTAATACGCCGCAAGACCAT
SEQ ID No. 344: 5'- TACGCCGCAAGACCATCCTC
SEQ ID No. 345: 5'- GTTACGATCTAGCAAGCCGC
15 SEQ ID No. 346: 5'- AATACGCCGCAAGACCATCC
SEQ ID No. 347: 5'- CGCCGCAAGACCATCCTCTA
SEQ ID No. 348: 5'- GCTAATACGCCGCAAGACCA
SEQ ID No. 349: 5'- ACCATCCTCTAGCGATCCAA
SEQ ID No. 350: 5'- TAATACGCCGCAAGACCATC
20 SEQ ID No. 351: 5'- AGCCATCCCTTTCTGGTAAG
SEQ ID No. 352: 5'- ATACGCCGCAAGACCATCCT
SEQ ID No. 353: 5'- AGTTACGATCTAGCAAGCCG
SEQ ID No. 354: 5'- AGCTAATACGCCGCAAGACC
SEQ ID No. 355: 5'- GCCGCAAGACCATCCTCTAG
25 SEQ ID No. 356: 5'- TTACGATCTAGCAAGCCGCT
SEQ ID No. 357: 5'- GACCATCCTCTAGCGATCCA
SEQ ID No. 358: 5'- TTGCTACGTCACTAGGAGGC
SEQ ID No. 359: 5'- ACGTCACTAGGAGGCGGAAA
SEQ ID No. 360: 5'- TTTGCTACGTCACTAGGAGG
30 SEQ ID No. 361: 5'- GCCATCCCTTTCTGGTAAGG

SEQ ID No. 362: 5'- TACGTCACTAGGAGGCGGAA
SEQ ID No. 363: 5'- CGTCACTAGGAGGCGGAAAC
SEQ ID No. 364: 5'- AAGACCATCCTCTAGCGATC
SEQ ID No. 365: 5'- GCACGTATTTAGCCATCCCT
5 SEQ ID No. 366: 5'- CTCTAGCGATCCAAAAGGAC
SEQ ID No. 367: 5'- CCTCTAGCGATCCAAAAGGA
SEQ ID No. 368: 5'- CCATCCTCTAGCGATCCAAA
SEQ ID No. 369: 5'- GGCACGTATTTAGCCATCCC
SEQ ID No. 370: 5'- TACGATCTAGCAAGCCGCTT
10 SEQ ID No. 371: 5'- CAGTTACGATCTAGCAAGCC
SEQ ID No. 372: 5'- CCGCAAGACCATCCTCTAGC
SEQ ID No. 373: 5'- CCATCCCTTTCTGGTAAGGT
SEQ ID No. 374: 5'- AGACCATCCTCTAGCGATCC
SEQ ID No. 375: 5'- CAAGACCATCCTCTAGCGAT
15 SEQ ID No. 376: 5'- GCTACGTCACTAGGAGGCGG
SEQ ID No. 377: 5'- TGCTACGTCACTAGGAGGCG
SEQ ID No. 378: 5'- CTACGTCACTAGGAGGCGGA
SEQ ID No. 379: 5'- CCTCAACGTCAGTTACGATC
SEQ ID No. 380: 5'- GTCACTAGGAGGCGGAAACC
20 SEQ ID No. 381: 5'- TCCTCTAGCGATCCAAAAGG
SEQ ID No. 382: 5'- TGGCACGTATTTAGCCATCC
SEQ ID No. 383: 5'- ACGATCTAGCAAGCCGCTTT
SEQ ID No. 384: 5'- GCCAGTCTCTCAACTCGGCT
SEQ ID No. 385: 5'- AAGCTAATACGCCGCAAGAC
25 SEQ ID No. 386: 5'- GTTTGCTACGTCACTAGGAG
SEQ ID No. 387: 5'- CGCCACTCTAGTCATTGCCT
SEQ ID No. 388: 5'- GGCCAGCCAGTCTCTCAACT
SEQ ID No. 389: 5'- CAGCCAGTCTCTCAACTCGG
SEQ ID No. 390: 5'- CCCGAAGATCAATTCAGCGG
30 SEQ ID No. 391: 5'- CCGGCCAGTCTCTCAACTCG

SEQ ID No. 392: 5'- CCAGCCAGTCTCTCAACTCG
SEQ ID No. 393: 5'- TCATTGCCTCACTTCACCCG
SEQ ID No. 394: 5'- GCCAGCCAGTCTCTCAACTC
SEQ ID No. 395: 5'- CACCCGAAGATCAATTCAGC
5 SEQ ID No. 396: 5'- GTCATTGCCTCACTTCACCC
SEQ ID No. 397: 5'- CATTGCCTCACTTCACCCGA
SEQ ID No. 398: 5'- ATTGCCTCACTTCACCCGAA
SEQ ID No. 399: 5'- CGAAGATCAATTCAGCGGCT
SEQ ID No. 400: 5'- AGTCATTGCCTCACTTCACC
10 SEQ ID No. 401: 5'- TCGCCACTCTAGTCATTGCC
SEQ ID No. 402: 5'- TTGCCTCACTTCACCCGAAG
SEQ ID No. 403: 5'- CGGCCAGTCTCTCAACTCGG
SEQ ID No. 404: 5'- CTGGCACGTATTTAGCCATC
SEQ ID No. 405: 5'- ACCCGAAGATCAATTCAGCG
15 SEQ ID No. 406: 5'- TCTAGCGATCCAAAAGGACC
SEQ ID No. 407: 5'- CTAGCGATCCAAAAGGACCT
SEQ ID No. 408: 5'- GCACCCATCGTTTACGGTAT
SEQ ID No. 409: 5'- CACCCATCGTTTACGGTATG
SEQ ID No. 410: 5'- GCCACTCTAGTCATTGCCTC
20 SEQ ID No. 411: 5'- CGTTTGCTACGTCACTAGGA
SEQ ID No. 412: 5'- GCCTCAACGTCAGTTACGAT
SEQ ID No. 413: 5'- GCCGGCCAGTCTCTCAACTC
SEQ ID No. 414: 5'- TCACTAGGAGGCGGAAACCT
SEQ ID No. 415: 5'- AGCCTCAACGTCAGTTACGA
25 SEQ ID No. 416: 5'- AGCCAGTCTCTCAACTCGGC
SEQ ID No. 417: 5'- GGCCAGTCTCTCAACTCGGC
SEQ ID No. 418: 5'- CAAGCTAATACGCCGCAAGA
SEQ ID No. 419: 5'- TTCGCCACTCTAGTCATTGC
SEQ ID No. 420: 5'- CCGAAGATCAATTCAGCGGC
30 SEQ ID No. 421: 5'- CGCAAGACCATCCTCTAGCG

SEQ ID No. 422: 5'- GCAAGACCATCCTCTAGCGA
SEQ ID No. 423: 5'- GCGTTTGCTACGTCACTAGG
SEQ ID No. 424: 5'- CCACTCTAGTCATTGCCTCA
SEQ ID No. 425: 5'- CACTCTAGTCATTGCCTCAC
5 SEQ ID No. 426: 5'- CCAGTCTCTCAACTCGGCTA
SEQ ID No. 427: 5'- TTACCTTAGGCACCGGCCTC
SEQ ID No. 428: 5'- ACAAGCTAATACGCCGCAAG
SEQ ID No. 429: 5'- TTTACCTTAGGCACCGGCCT
SEQ ID No. 430: 5'- TTTTACCTTAGGCACCGGCC
10 SEQ ID No. 431: 5'- ATTTTACCTTAGGCACCGGC
SEQ ID No. 432: 5'- GATTTTACCTTAGGCACCGG
SEQ ID No. 433: 5'- CTCACTTCACCCGAAGATCA
SEQ ID No. 434: 5'- ACGCCACCAGCGTTCATCCT
SEQ ID No. 435: 5'- GCCAAGCGACTTTGGGTACT
15 SEQ ID No. 436: 5'- CGGAAAATTCCCTACTGCAG
SEQ ID No. 437: 5'- CGATCTAGCAAGCCGCTTTC
SEQ ID No. 438: 5'- GGTACCGTCAAGCTGAAAAC
SEQ ID No. 439: 5'- TGCCTCACTTCACCCGAAGA
SEQ ID No. 440: 5'- GGCCGGCCAGTCTCTCAACT
20 SEQ ID No. 441: 5'- GGTAAGGTACCGTCAAGCTG
SEQ ID No. 442: 5'- GTAAGGTACCGTCAAGCTGA
SEQ ID No. 443: 5'- CCGCAAGACCATCCTCTAGG
SEQ ID No. 444: 5'- ATTTAGCCATCCCTTTCTGG
SEQ ID No. 445: 5'- AACCCTTCATCACACACG
25 SEQ ID No. 446: 5'- CGAAACCCTTCATCACAC
SEQ ID No. 447: 5'- ACCCTTCATCACACACGC
SEQ ID No. 448: 5'- TACCGTCACACACTGAAC
SEQ ID No. 449: 5'- AGATACCGTCACACACTG
SEQ ID No. 450: 5'- CACTCAAGGGCGGAAACC
30 SEQ ID No. 451: 5'- ACCGTCACACACTGAACA

SEQ ID No. 452: 5'- CGTCACACACTGAACAGT
SEQ ID No. 453: 5'- CCGAAACCCTTCATCACA
SEQ ID No. 454: 5'- CCGTCACACACTGAACAG
SEQ ID No. 455: 5'- GATACCGTCACACACTGA
5 SEQ ID No. 456: 5'- GGTAAGATACCGTCACAC
SEQ ID No. 457: 5'- CCCTTCATCACACACGCG
SEQ ID No. 458: 5'- ACAGTGTTTTACGAGCCG
SEQ ID No. 459: 5'- CAGTGTTTTACGAGCCGA
SEQ ID No. 460: 5'- ACAAAGCGTTCGACTTGC
10 SEQ ID No. 461: 5'- CGGATAACGCTTGGAACA
SEQ ID No. 462: 5'- AGGGCGGAAACCCTCGAA
SEQ ID No. 463: 5'- GGGCGGAAACCCTCGAAC
SEQ ID No. 464: 5'- GGCGGAAACCCTCGAACA
SEQ ID No. 465: 5'- TGAGGGCTTTCACTTCAG
15 SEQ ID No. 466: 5'- AGGGCTTTCACTTCAGAC
SEQ ID No. 467: 5'- GAGGGCTTTCACTTCAGA
SEQ ID No. 468: 5'- ACTGCACTCAAGTCATCC
SEQ ID No. 469: 5'- CCGGATAACGCTTGGAAC
SEQ ID No. 470: 5'- TCCGGATAACGCTTGGA
20 SEQ ID No. 471: 5'- TATCCCCTGCTAAGAGGT
SEQ ID No. 472: 5'- CCTGCTAAGAGGTAGGTT
SEQ ID No. 473: 5'- CCCTGCTAAGAGGTAGGT
SEQ ID No. 474: 5'- CCCCTGCTAAGAGGTAGG
SEQ ID No. 475: 5'- TCCCCTGCTAAGAGGTAG
25 SEQ ID No. 476: 5'- ATCCCCTGCTAAGAGGTA
SEQ ID No. 477: 5'- CCGTTCCTTTCTGGTAAG
SEQ ID No. 478: 5'- GCCGTTCCTTTCTGGTAA
SEQ ID No. 479: 5'- AGCCGTTCCTTTCTGGTA
SEQ ID No. 480: 5'- GCACGTATTTAGCCGTTC
30 SEQ ID No. 481: 5'- CACGTATTTAGCCGTTC

SEQ ID No. 482: 5'-GGCACGTATTTAGCCGTT
SEQ ID No. 483: 5'-CACTTTCCTCTACTGCAC
SEQ ID No. 484: 5'-CCACTTTCCTCTACTGCA
SEQ ID No. 485: 5'-TCCACTTTCCTCTACTGC
5 SEQ ID No. 486: 5'-CTTTCCTCTACTGCACTC
SEQ ID No. 487: 5'-TAGCCGTTTCCTTTCTGGT
SEQ ID No. 488: 5'-TTAGCCGTTTCCTTTCTGG
SEQ ID No. 489: 5'-TTATCCCCTGCTAAGAGG
SEQ ID No. 490: 5'-GTTATCCCCTGCTAAGAG
10 SEQ ID No. 491: 5'-CCCGTTTCGCCACTCTTTG
SEQ ID No. 492: 5'-AGCTGAGGGCTTTCACTT
SEQ ID No. 493: 5'-GAGCTGAGGGCTTTCACT
SEQ ID No. 494: 5'-GCTGAGGGCTTTCACTTC
SEQ ID No. 495: 5'-CTGAGGGCTTTCACTTCA
15 SEQ ID No. 496: 5'-CCCGTGTCCCGAAGGAAC
SEQ ID No. 497: 5'-GCACGAGTATGTCAAGAC
SEQ ID No. 498: 5'-GTATCCCGTGTCCCGAAG
SEQ ID No. 499: 5'-TCCCGTGTCCCGAAGGAA
SEQ ID No. 500: 5'-ATCCCGTGTCCCGAAGGA
20 SEQ ID No. 501: 5'-TATCCCGTGTCCCGAAGG
SEQ ID No. 502: 5'-CTTACCTTAGGAAGCGCC
SEQ ID No. 503: 5'-TTACCTTAGGAAGCGCCC
SEQ ID No. 504: 5'-CCTGTATCCCGTGTCCCG
SEQ ID No. 505: 5'-CCACCTGTATCCCGTGTC
25 SEQ ID No. 506: 5'-CACCTGTATCCCGTGTCC
SEQ ID No. 507: 5'-ACCTGTATCCCGTGTCCC
SEQ ID No. 508: 5'-CTGTATCCCGTGTCCCGA
SEQ ID No. 509: 5'-TGTATCCCGTGTCCCGAA
SEQ ID No. 510: 5'-CACGAGTATGTCAAGACC
30 SEQ ID No. 511: 5'-CGGTCTTACCTTAGGAAG

SEQ ID No. 512: 5' TAGGAAGCGCCCTCCTTG
SEQ ID No. 513: 5' AGGAAGCGCCCTCCTTGC
SEQ ID No. 514: 5' TTAGGAAGCGCCCTCCTT
SEQ ID No. 515: 5' CTTAGGAAGCGCCCTCCT
5 SEQ ID No. 516: 5' CCTTAGGAAGCGCCCTCC
SEQ ID No. 517: 5' ACCTTAGGAAGCGCCCTC
SEQ ID No. 518: 5' TGCACACAATGGTTGAGC
SEQ ID No. 519: 5' TACCTTAGGAAGCGCCCT
SEQ ID No. 520: 5' ACCACCTGTATCCCGTGT
10 SEQ ID No. 521: 5' GCACCACCTGTATCCCGT
SEQ ID No. 522: 5' CACCACCTGTATCCCGTG
SEQ ID No. 523: 5' GCGGTTAGGCAACCTACT
SEQ ID No. 524: 5' TGCGGTTAGGCAACCTAC
SEQ ID No. 525: 5' TTGCGGTTAGGCAACCTA
15 SEQ ID No. 526: 5' GGTCTTACCTTAGGAAGC
SEQ ID No. 527: 5' GCTAATACAACGCGGGAT
SEQ ID No. 528: 5' CTAATACAACGCGGGATC
SEQ ID No. 529: 5' ATACAACGCGGGATCATC
SEQ ID No. 530: 5' CGGTTAGGCAACCTACTT
20 SEQ ID No. 531: 5' TGCACCACCTGTATCCCG
SEQ ID No. 532: 5' GAAGCGCCCTCCTTGCGG
SEQ ID No. 533: 5' GGAAGCGCCCTCCTTGCG
SEQ ID No. 534: 5' CGTCCCTTTCTGGTTAGA
SEQ ID No. 535: 5' AGCTAATACAACGCGGGA
25 SEQ ID No. 536: 5' TAGCTAATACAACGCGGG
SEQ ID No. 537: 5' CTAGCTAATACAACGCGG
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SEQ ID No. 539: 5' GAGCCACTGCCTTTTACA
SEQ ID No. 540: 5' GTCGGCTATGTATCATCG
30 SEQ ID No. 541: 5' GGTCGGCTATGTATCATC

SEQ ID No. 542: 5' CAGGTCGGCTATGTATCA
SEQ ID No. 543: 5' CGGCTATGTATCATCGCC
SEQ ID No. 544: 5' TCGGCTATGTATCATCGC
SEQ ID No. 545: 5' GTCTTACCTTAGGAAGCG
5 SEQ ID No. 546: 5' TCTTACCTTAGGAAGCGC
SEQ ID No. 547: 5'- GTACAAACCGCCTACACGCC
SEQ ID No. 548: 5'- TGTACAAACCGCCTACACGC
SEQ ID No. 549: 5'- GATCAGCACGATGTCGCCAT
SEQ ID No. 550: 5'- CTGTACAAACCGCCTACACG
10 SEQ ID No. 551: 5'- GAGATCAGCACGATGTCGCC
SEQ ID No. 552: 5'- AGATCAGCACGATGTCGCCA
SEQ ID No. 553: 5'- ATCAGCACGATGTCGCCATC
SEQ ID No. 554: 5'- TCAGCACGATGTCGCCATCT
SEQ ID No. 555: 5'- ACTGTACAAACCGCCTACAC
15 SEQ ID No. 556: 5'- CCGCCACTAAGGCCGAAACC
SEQ ID No. 557: 5'- CAGCACGATGTCGCCATCTA
SEQ ID No. 558: 5'- TACAAACCGCCTACACGCCC
SEQ ID No. 559: 5'- AGCACGATGTCGCCATCTAG
SEQ ID No. 560: 5'- CGGCTTTTAGAGATCAGCAC
20 SEQ ID No. 561: 5'- TCCGCCACTAAGGCCGAAAC
SEQ ID No. 562: 5'- GACTGTACAAACCGCCTACA
SEQ ID No. 563: 5'- GTCCGCCACTAAGGCCGAAA
SEQ ID No. 564: 5'- GGGGATTTACATCTGACTG
SEQ ID No. 565: 5'- CATACAAGCCCTGGTAAGGT
25 SEQ ID No. 566: 5'- ACAAGCCCTGGTAAGGTTCT
SEQ ID No. 567: 5'- ACAAACCGCCTACACGCCCT
SEQ ID No. 568: 5'- CTGACTGTACAAACCGCCTA
SEQ ID No. 569: 5'- TGACTGTACAAACCGCCTAC
SEQ ID No. 570: 5'- ACGATGTCGCCATCTAGCTT
30 SEQ ID No. 571: 5'- CACGATGTCGCCATCTAGCT

SEQ ID No. 572: 5'-CGATGTCGCCATCTAGCTTC
SEQ ID No. 573: 5'-GCACGATGTCGCCATCTAGC
SEQ ID No. 574: 5'-GATGTCGCCATCTAGCTTCC
SEQ ID No. 575: 5'-ATGTCGCCATCTAGCTTCCC
5 SEQ ID No. 576: 5'-TGTCGCCATCTAGCTTCCCA
SEQ ID No. 577: 5'-GCCATCTAGCTTCCCCTGT
SEQ ID No. 578: 5'-TCGCCATCTAGCTTCCCCT
SEQ ID No. 579: 5'-CGCCATCTAGCTTCCCCTG
SEQ ID No. 580: 5'-GTCGCCATCTAGCTTCCCAC
10 SEQ ID No. 581: 5'-TACAAGCCCTGGTAAGGTTTC
SEQ ID No. 582: 5'-GCCACTAAGGCCGAAACCTT
SEQ ID No. 583: 5'-ACTAAGGCCGAAACCTTCGT
SEQ ID No. 584: 5'-CTAAGGCCGAAACCTTCGTG
SEQ ID No. 585: 5'-CACTAAGGCCGAAACCTTCG
15 SEQ ID No. 586: 5'-AAGGCCGAAACCTTCGTGCG
SEQ ID No. 587: 5'-CCACTAAGGCCGAAACCTTC
SEQ ID No. 588: 5'-TAAGGCCGAAACCTTCGTGC
SEQ ID No. 589: 5'-AGGCCGAAACCTTCGTGCGA
SEQ ID No. 590: 5'-TCTGACTGTACAAACCGCCT
20 SEQ ID No. 591: 5'-CATCTGACTGTACAAACCGC
SEQ ID No. 592: 5'-ATCTGACTGTACAAACCGCC
SEQ ID No. 593: 5'-CTTCGTGCGACTTGCGATGTG
SEQ ID No. 594: 5'-CCTTCGTGCGACTTGCGATGT
SEQ ID No. 595: 5'-CTCTCTAGAGTGCCCAACCA
25 SEQ ID No. 596: 5'-TCTCTAGAGTGCCCAACCAA
SEQ ID No. 597: 5'-ACGTATCAAATGCAGCTCCC
SEQ ID No. 598: 5'-CGTATCAAATGCAGCTCCCA
SEQ ID No. 599: 5'-CGCCACTAAGGCCGAAACCT
SEQ ID No. 600: 5'-CCGAAACCTTCGTGCGACTT
30 SEQ ID No. 601: 5'-GCCGAAACCTTCGTGCGACT

SEQ ID No. 602: 5'- AACCTTCGTGCGACTTG CAT
SEQ ID No. 603: 5'- CGAAACCTTCGTGCGACTTG
SEQ ID No. 604: 5'- ACCTTCGTGCGACTTG CATG
SEQ ID No. 605: 5'- GAAACCTTCGTGCGACTTG C
5 SEQ ID No. 606: 5'- GGCCGAAACCTTCGTGCGAC
SEQ ID No. 607: 5'- AAACCTTCGTGCGACTTG CA
SEQ ID No. 608: 5'- CACGTATCAAATGCAGCTCC
SEQ ID No. 609: 5'- GCTCACCGGCTTAAGGTCAA
SEQ ID No. 610: 5'- CGCTCACCGGCTTAAGGTCA
10 SEQ ID No. 611: 5'- TCGCTCACCGGCTTAAGGTC
SEQ ID No. 612: 5'- CTCACCGGCTTAAGGTCAAA
SEQ ID No. 613: 5'- CCCGACCGTGGTCGGCTGCG
SEQ ID No. 614: 5'- GCTCACCGGCTTAAGGTCAA
SEQ ID No. 615: 5'- CGCTCACCGGCTTAAGGTCA
15 SEQ ID No. 616: 5'- TCGCTCACCGGCTTAAGGTC
SEQ ID No. 617: 5'- CTCACCGGCTTAAGGTCAAA
SEQ ID No. 618: 5'- CCCGACCGTGGTCGGCTGCG
SEQ ID No. 619: 5'- TCACCGGCTTAAGGTCAAAC
SEQ ID No. 620: 5'- CAACCCTCTCTCACACTCTA
20 SEQ ID No. 621: 5'- ACAACCCTCTCTCACACTCT
SEQ ID No. 622: 5'- CCACAACCCTCTCTCACACT
SEQ ID No. 623: 5'- AACCCTCTCTCACACTCTAG
SEQ ID No. 624: 5'- CACAACCCTCTCTCACACTC
SEQ ID No. 625: 5'- TCCACAACCCTCTCTCACAC
25 SEQ ID No. 626: 5'- TTCCACAACCCTCTCTCACA
SEQ ID No. 627: 5'- ACCCTCTCTCACACTCTAGT
SEQ ID No. 628: 5'- GAGCCAGGTTGCCGCCTTCG
SEQ ID No. 629: 5'- AGGTCAAACCAACTCCCATG
SEQ ID No. 630: 5'- ATGAGCCAGGTTGCCGCCTT
30 SEQ ID No. 631: 5'- TGAGCCAGGTTGCCGCCTTC

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SEQ ID No. 633: 5'- CAGGCTCCTCCACAGGCGAC
SEQ ID No. 634: 5'- GCAGGCTCCTCCACAGGCGA
SEQ ID No. 635: 5'- TTCGCTCACCGGCTTAAGGT
5 SEQ ID No. 636: 5'- GTTCGCTCACCGGCTTAAGG
SEQ ID No. 637: 5'- GGTTCGCTCACCGGCTTAAG
SEQ ID No. 638: 5'- ATTCCACAACCCTCTCTCAC
SEQ ID No. 639: 5'- TGACCCGACCGTGGTCGGCT
SEQ ID No. 640: 5'- CCCTCTCTCACACTCTAGTC
10 SEQ ID No. 641: 5'- GAATTCCACAACCCTCTCTC
SEQ ID No. 642: 5'- AGCCAGGTTGCCGCCTTCGC
SEQ ID No. 643: 5'- GCCAGGTTGCCGCCTTCGCC
SEQ ID No. 644: 5'- GGAATTCCACAACCCTCTCT
SEQ ID No. 645: 5'- GGGAATTCCACAACCCTCTC
15 SEQ ID No. 646: 5'- AACGCAGGCTCCTCCACAGG
SEQ ID No. 647: 5'- CGGCTTAAGGTCAAACCAAC
SEQ ID No. 648: 5'- CCGGCTTAAGGTCAAACCAA
SEQ ID No. 649: 5'- CACCGGCTTAAGGTCAAACC
SEQ ID No. 650: 5'- ACCGGCTTAAGGTCAAACCA
20 SEQ ID No. 651: 5'- ACCCAACATCCAGCACACAT
SEQ ID No. 652: 5'- TCGCTGACCCGACCGTGGTC
SEQ ID No. 653: 5'- CGCTGACCCGACCGTGGTCG
SEQ ID No. 654: 5'- GACCCGACCGTGGTCGGCTG
SEQ ID No. 655: 5'- GCTGACCCGACCGTGGTCGG
25 SEQ ID No. 656: 5'- CTGACCCGACCGTGGTCGGC
SEQ ID No. 657: 5'- CAGGCGACTTGCGCCTTTGA
SEQ ID No. 658: 5'- TCATGCGGTATTAGCTCCAG
SEQ ID No. 659: 5'- ACTAGCTAATCGAACGCAGG
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30 SEQ ID No. 661: 5'- CGCAGGCTCCTCCACAGGCG

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SEQ ID No. 663: 5'- CTCAGGTGTCATGCGGTATT
SEQ ID No. 664: 5'- CGCCTTTGACCCTCAGGTGT
SEQ ID No. 665: 5'- ACCCTCAGGTGTCATGCGGT
5 SEQ ID No. 666: 5'- CCTCAGGTGTCATGCGGTAT
SEQ ID No. 667: 5'- TTTGACCCTCAGGTGTCATG
SEQ ID No. 668: 5'- GACCCTCAGGTGTCATGCGG
SEQ ID No. 669: 5'- TGACCCTCAGGTGTCATGCG
SEQ ID No. 670: 5'- GCCTTTGACCCTCAGGTGTC
10 SEQ ID No. 671: 5'- TTGACCCTCAGGTGTCATGC
SEQ ID No. 672: 5'- CCCTCAGGTGTCATGCGGTA
SEQ ID No. 673: 5'- CCTTTGACCCTCAGGTGTCA
SEQ ID No. 674: 5'- CTTTGACCCTCAGGTGTCAT
SEQ ID No. 675: 5'- AGTTATCCCCCACCCATGGA
15 SEQ ID No. 676: 5'- CCAGCTATCGATCATCGCCT
SEQ ID No. 677: 5'- ACCAGCTATCGATCATCGCC
SEQ ID No. 678: 5'- CAGCTATCGATCATCGCCTT
SEQ ID No. 679: 5'- AGCTATCGATCATCGCCTTG
SEQ ID No. 680: 5'- GCTATCGATCATCGCCTTGG
20 SEQ ID No. 681: 5'- CTATCGATCATCGCCTTGGT
SEQ ID No. 682: 5'- TTCGTGCGACTTG CATGTGT
SEQ ID No. 683: 5'- TCGATCATCGCCTTGGTAGG
SEQ ID No. 684: 5'- ATCGATCATCGCCTTGGTAG
SEQ ID No. 685: 5'- CACAGGCGACTTGCGCCTTT
25 SEQ ID No. 686: 5'- CCACAGGCGACTTGCGCCTT
SEQ ID No. 687: 5'- TCCACAGGCGACTTGCGCCT
SEQ ID No. 688: 5'- TCCTCCACAGGCGACTTGCG
SEQ ID No. 689: 5'- CCTCCACAGGCGACTTGCGC
SEQ ID No. 690: 5'- CTCCACAGGCGACTTGCGCC
30 SEQ ID No. 691: 5'- ACAGGCGACTTGCGCCTTTG

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	SEQ ID No. 693:	5'- CGCTCACCGGCTTAAGGTCA
	SEQ ID No. 694:	5'- TCGCTCACCGGCTTAAGGTC
	SEQ ID No. 695:	5'- CTCACCGGCTTAAGGTCAAA
5	SEQ ID No. 696:	5'- CCCGACCGTGGTCGGCTGCG
	SEQ ID No. 697:	5'- TCACCGGCTTAAGGTCAAAC
	SEQ ID No. 698:	5'- CAACCCTCTCTCACACTCTA
	SEQ ID No. 699:	5'- ACAACCCTCTCTCACACTCT
	SEQ ID No. 700:	5'- CCACAACCCTCTCTCACACT
10	SEQ ID No. 701:	5'- AACCCTCTCTCACACTCTAG
	SEQ ID No. 702:	5'- CACAACCCTCTCTCACACTC
	SEQ ID No. 703:	5'- TCCACAACCCTCTCTCACAC
	SEQ ID No. 704:	5'- TTCCACAACCCTCTCTCACA
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15	SEQ ID No. 706:	5'- GAGCCAGGTTGCCGCCTTCG
	SEQ ID No. 707:	5'- AGGTCAAACCAACTCCCATG
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	SEQ ID No. 709:	5'- TGAGCCAGGTTGCCGCCTTC
	SEQ ID No. 710:	5'- AGGCTCCTCCACAGGCGACT
20	SEQ ID No. 711:	5'- CAGGCTCCTCCACAGGCGAC
	SEQ ID No. 712:	5'- GCAGGCTCCTCCACAGGCGA
	SEQ ID No. 713:	5'- TTCGCTCACCGGCTTAAGGT
	SEQ ID No. 714:	5'- GTTCGCTCACCGGCTTAAGG
	SEQ ID No. 715:	5'- GGTTGCTCACCGGCTTAAG
25	SEQ ID No. 716:	5'- ATTCCACAACCCTCTCTCAC
	SEQ ID No. 717:	5'- TGACCCGACCGTGGTCGGCT
	SEQ ID No. 718:	5'- CCCTCTCTCACACTCTAGTC
	SEQ ID No. 719:	5'- GAATTCCACAACCCTCTCTC
	SEQ ID No. 720:	5'- AGCCAGGTTGCCGCCTTCGC
30	SEQ ID No. 721:	5'- GCCAGGTTGCCGCCTTCGCC

	SEQ ID No. 722:	5'- GGAATTCCACAACCCTCTCT
	SEQ ID No. 723:	5'- GGGAATTCCACAACCCTCTC
	SEQ ID No. 724:	5'- AACGCAGGCTCCTCCACAGG
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5	SEQ ID No. 726:	5'- CCGGCTTAAGGTCAAACCAA
	SEQ ID No. 727:	5'- CACCGGCTTAAGGTCAAACC
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	SEQ ID No. 729:	5'- ACCCAACATCCAGCACACAT
	SEQ ID No. 730:	5'- TCGCTGACCCGACCGTGGTC
10	SEQ ID No. 731:	5'- CGCTGACCCGACCGTGGTCG
	SEQ ID No. 732:	5'- GACCCGACCGTGGTCGGCTG
	SEQ ID No. 733:	5'- GCTGACCCGACCGTGGTCGG
	SEQ ID No. 734:	5'- CTGACCCGACCGTGGTCGGC
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15	SEQ ID No. 736:	5'- TCATGCGGTATTAGCTCCAG
	SEQ ID No. 737:	5'- ACTAGCTAATCGAACGCAGG
	SEQ ID No. 738:	5'- CATGCGGTATTAGCTCCAGT
	SEQ ID No. 739:	5'- CGCAGGCTCCTCCACAGGCG
	SEQ ID No. 740:	5'- ACGCAGGCTCCTCCACAGGC
20	SEQ ID No. 741:	5'- CTCAGGTGTCATGCGGTATT
	SEQ ID No. 742:	5'- CGCCTTTGACCCTCAGGTGT
	SEQ ID No. 743:	5'- ACCCTCAGGTGTCATGCGGT
	SEQ ID No. 744:	5'- CCTCAGGTGTCATGCGGTAT
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25	SEQ ID No. 746:	5'- GACCCTCAGGTGTCATGCGG
	SEQ ID No. 747:	5'- TGACCCTCAGGTGTCATGCG
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	SEQ ID No. 750:	5'- CCCTCAGGTGTCATGCGGTA
30	SEQ ID No. 751:	5'- CCTTTGACCCTCAGGTGTCA

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5 SEQ ID No. 756: 5'- CAGCTATCGATCATCGCCTT
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SEQ ID No. 758: 5'- GCTATCGATCATCGCCTTGG
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SEQ ID No. 760: 5'- TTCGTGCGACTTGCGATGTGT
10 SEQ ID No. 761: 5'- TCGATCATCGCCTTGGTAGG
SEQ ID No. 762: 5'- ATCGATCATCGCCTTGGTAG
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SEQ ID No. 764: 5'- CCACAGGCGACTTGCGCCTT
SEQ ID No. 765: 5'- TCCACAGGCGACTTGCGCCT
15 SEQ ID No. 766: 5'- TCCTCCACAGGCGACTTGCG
SEQ ID No. 767: 5'- CCTCCACAGGCGACTTGCGC
SEQ ID No. 768: 5'- CTCCACAGGCGACTTGCGCC
SEQ ID No. 769: 5'- ACAGGCGACTTGCGCCTTTG
SEQ ID No. 770: 5'- TCACCGGCTTAAGGTCAAAC
20 SEQ ID No. 771: 5'- CAACCCTCTCTCACACTCTA
SEQ ID No. 772: 5'- ACAACCCTCTCTCACACTCT
SEQ ID No. 773: 5'- CCACAACCCTCTCTGACACT
SEQ ID No. 774: 5'- AACCCTCTCTCACACTCTAG
SEQ ID No. 775: 5'- CACAACCCTCTCTCACACTC
25 SEQ ID No. 776: 5'- TCCACAACCCTCTCTCACAC
SEQ ID No. 777: 5'- TTCCACAACCCTCTCTCACA
SEQ ID No. 778: 5'- ACCCTCTCTCACACTCTAGT
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SEQ ID No. 780: 5'- AGGTCAAACCAACTCCCATG
30 SEQ ID No. 781: 5'- ATGAGCCAGGTTGCCGCCTT

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	SEQ ID No. 784:	5'- CAGGCTCCTCCACAGGCGAC
	SEQ ID No. 785:	5'- GCAGGCTCCTCCACAGGCGA
5	SEQ ID No. 786:	5'- TTCGCTCACCGGCTTAAGGT
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	SEQ ID No. 789:	5'- ATTCCACAACCCTCTCTCAC
	SEQ ID No. 790:	5'- TGACCCGACCGTGGTCGGCT
10	SEQ ID No. 791:	5'- CCCTCTCTCACACTCTAGTC
	SEQ ID No. 792:	5'- GAATTCCACAACCCTCTCTC
	SEQ ID No. 793:	5'- AGCCAGGTTGCCGCCTTCGC
	SEQ ID No. 794:	5'- GCCAGGTTGCCGCCTTCGCC
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15	SEQ ID No. 796:	5'- GGGAATTCCACAACCCTCTC
	SEQ ID No. 797:	5'- AACGCAGGCTCCTCCACAGG
	SEQ ID No. 798:	5'- CGGCTTAAGGTCAAACCAAC
	SEQ ID No. 799:	5'- CCGGCTTAAGGTCAAACCAA
	SEQ ID No. 800:	5'- CACCGGCTTAAGGTCAAACC
20	SEQ ID No. 801:	5'- ACCGGCTTAAGGTCAAACCA
	SEQ ID No. 802:	5'- ACCCAACATCCAGCACACAT
	SEQ ID No. 803:	5'- TCGCTGACCCGACCGTGGTC
	SEQ ID No. 804:	5'- CGCTGACCCGACCGTGGTCG
	SEQ ID No. 805:	5'- GACCCGACCGTGGTCGGCTG
25	SEQ ID No. 806:	5'- GCTGACCCGACCGTGGTCGG
	SEQ ID No. 807:	5'- CTGACCCGACCGTGGTCGGC
	SEQ ID No. 808:	5'- CAGGCGACTTGCGCCTTTGA
	SEQ ID No. 809:	5'- TCATGCGGTATTAGCTCCAG
	SEQ ID No. 810:	5'- ACTAGCTAATCGAACGCAGG
30	SEQ ID No. 811:	5'- CATGCGGTATTAGCTCCAGT

SEQ ID No. 812: 5'- CGCAGGCTCCTCCACAGGCG
SEQ ID No. 813: 5'- ACGCAGGCTCCTCCACAGGC
SEQ ID No. 814: 5'- CTCAGGTGTCATGCGGTATT
SEQ ID No. 815: 5'- CGCCTTTGACCCTCAGGTGT
5 SEQ ID No. 816: 5'- ACCCTCAGGTGTCATGCGGT
SEQ ID No. 817: 5'- CCTCAGGTGTCATGCGGTAT
SEQ ID No. 818: 5'- TTTGACCCTCAGGTGTCATG
SEQ ID No. 819: 5'- GACCCTCAGGTGTCATGCGG
SEQ ID No. 820: 5'- TGACCCTCAGGTGTCATGCG
10 SEQ ID No. 821: 5'- GCCTTTGACCCTCAGGTGTC
SEQ ID No. 822: 5'- TTGACCCTCAGGTGTCATGC
SEQ ID No. 823: 5'- CCCTCAGGTGTCATGCGGTA
SEQ ID No. 824: 5'- CCTTTGACCCTCAGGTGTCA
SEQ ID No. 825: 5'- CTTTGACCCTCAGGTGTCAT
15 SEQ ID No. 826: 5'- AGTTATCCCCCACCCTATGGA
SEQ ID No. 827: 5'- CCAGCTATCGATCATCGCCT
SEQ ID No. 828: 5'- ACCAGCTATCGATCATCGCC
SEQ ID No. 829: 5'- CAGCTATCGATCATCGCCTT
SEQ ID No. 830: 5'- AGCTATCGATCATCGCCTTG
20 SEQ ID No. 831: 5'- GCTATCGATCATCGCCTTGG
SEQ ID No. 832: 5'- CTATCGATCATCGCCTTGGT
SEQ ID No. 833: 5'- TFCGTGCGACTTGCATGTGT
SEQ ID No. 834: 5'- TCGATCATCGCCTTGGTAGG
SEQ ID No. 835: 5'- ATCGATCATCGCCTTGGTAG
25 SEQ ID No. 836: 5'- CACAGGCGACTTGCGCCTTT
SEQ ID No. 837: 5'- CCACAGGCGACTTGCGCCTT
SEQ ID No. 838: 5'- TCCACAGGCGACTTGCGCCT
SEQ ID No. 839: 5'- TCCTCCACAGGCGACTTGCG
SEQ ID No. 840: 5'- CCTCCACAGGCGACTTGCGC
30 SEQ ID No. 841: 5'- CTCCACAGGCGACTTGCGCC

	SEQ ID No. 842:	5'- ACAGGCGACTTGCGCCTTTG
	SEQ ID No. 843:	5'- AGCCCCGGTTTCCCGGCGTT
	SEQ ID No. 844:	5'- CGCCTTTCCTTTTTCCTCCA
	SEQ ID No. 845:	5'- GCCCCGGTTTCCCGGCGTTA
5	SEQ ID No. 846:	5'- GCCGCCTTTCCTTTTTCCTC
	SEQ ID No. 847:	5'- TAGCCCCGGTTTCCCGGCGT
	SEQ ID No. 848:	5'- CCGGGTACCGTCAAGGCGCC
	SEQ ID No. 849:	5'- AAGCCGCCTTTCCTTTTTC
	SEQ ID No. 850:	5'- CCCC GGTTTCCCGGCGTTAT
10	SEQ ID No. 851:	5'- CCGGCGTTATCCCAGTCTTA
	SEQ ID No. 852:	5'- AGCCGCCTTTCCTTTTTCCT
	SEQ ID No. 853:	5'- CCGCCTTTCCTTTTTCCTCC
	SEQ ID No. 854:	5'- TTAGCCCCGGTTTCCCGGCG
	SEQ ID No. 855:	5'- CCCGGCGTTATCCCAGTCTT
15	SEQ ID No. 856:	5'- GCCGGGTACCGTCAAGGCGC
	SEQ ID No. 857:	5'- GGCCGGGTACCGTCAAGGCG
	SEQ ID No. 858:	5'- TCCCGGCGTTATCCCAGTCT
	SEQ ID No. 859:	5'- TGGCCGGGTACCGTCAAGGC
	SEQ ID No. 860:	5'- GAAGCCGCCTTTCCTTTTTC
20	SEQ ID No. 861:	5'- CCCGGTTTCCCGGCGTTATC
	SEQ ID No. 862:	5'- CGGCGTTATCCCAGTCTTAC
	SEQ ID No. 863:	5'- GGCGTTATCCCAGTCTTACA
	SEQ ID No. 864:	5'- GCGTTATCCCAGTCTTACAG
	SEQ ID No. 865:	5'- CGGGTACCGTCAAGGCGCCG
25	SEQ ID No. 866:	5'- ATTAGCCCCGGTTTCCCGGC
	SEQ ID No. 867:	5'- AAGGGGAAGGCCCTGTCTCC
	SEQ ID No. 868:	5'- GGCCCTGTCTCCAGGGAGGT
	SEQ ID No. 869:	5'- AGGCCCTGTCTCCAGGGAGG
	SEQ ID No. 870:	5'- AAGGCCCTGTCTCCAGGGAG
30	SEQ ID No. 871:	5'- GCCCTGTCTCCAGGGAGGTC

	SEQ ID No. 872:	5'- CGTTATCCCAGTCTTACAGG
	SEQ ID No. 873:	5'- GGGTACCGTCAAGGCGCCGC
	SEQ ID No. 874:	5'- CGGCAACAGAGTTTTACGAC
	SEQ ID No. 875:	5'- GGGGAAGGCCCTGTCTCCAG
5	SEQ ID No. 876:	5'- AGGGGAAGGCCCTGTCTCCA
	SEQ ID No. 877:	5'- GCAGCCGAAGCCGCCTTTCC
	SEQ ID No. 878:	5'- TTCTTCCCCGGCAACAGAGT
	SEQ ID No. 879:	5'- CGGCACTTGTTCTTCCCCGG
	SEQ ID No. 880:	5'- GTTCTTCCCCGGCAACAGAG
10	SEQ ID No. 881:	5'- GGCACCTGTTCTTCCCCGGC
	SEQ ID No. 882:	5'- GCACTTGTTCTTCCCCGGCA
	SEQ ID No. 883:	5'- CACTTGTTCTTCCCCGGCAA
	SEQ ID No. 884:	5'- TCTTCCCCGGCAACAGAGTT
	SEQ ID No. 885:	5'- TTGTTCTTCCCCGGCAACAG
15	SEQ ID No. 886:	5'- ACTTGTTCTTCCCCGGCAAC
	SEQ ID No. 887:	5'- TGTTCTTCCCCGGCAACAGA
	SEQ ID No. 888:	5'- CTTGTTCTTCCCCGGCAACA
	SEQ ID No. 889:	5'- ACGGCACTTGTTCTTCCCCG
	SEQ ID No. 890:	5'- GTCCGCCGCTAACCTTTTAA
20	SEQ ID No. 891:	5'- CTGGCCGGGTACCGTCAAGG
	SEQ ID No. 892:	5'- TCTGGCCGGGTACCGTCAAG
	SEQ ID No. 893:	5'- TTCTGGCCGGGTACCGTCAA
	SEQ ID No. 894:	5'- CAATGCTGGCAACTAAGGTC
	SEQ ID No. 895:	5'- CGTCCGCCGCTAACCTTTTA
25	SEQ ID No. 896:	5'- CGAAGCCGCCTTTCCTTTTT
	SEQ ID No. 897:	5'- CCGAAGCCGCCTTTCCTTTT
	SEQ ID No. 898:	5'- GCCGAAGCCGCCTTTCCTTT
	SEQ ID No. 899:	5'- AGCCGAAGCCGCCTTTCCTT
	SEQ ID No. 900:	5'- ACCGTCAAGGCGCCGCCCTG
30	SEQ ID No. 901:	5'- CCGTGGCTTTCTGGCCGGGT

SEQ ID No. 902: 5'- GCTTTCTGGCCGGGTACCGT
SEQ ID No. 903: 5'- GCCGTGGCTTTCTGGCCGGG
SEQ ID No. 904: 5'- GGCTTTCTGGCCGGGTACCG
SEQ ID No. 905: 5'- CTTTCTGGCCGGGTACCGTC
5 SEQ ID No. 906: 5'- TGGCTTTCTGGCCGGGTACC
SEQ ID No. 907: 5'- GTGGCTTTCTGGCCGGGTAC
SEQ ID No. 908: 5'- CGTGGCTTTCTGGCCGGGTAC
SEQ ID No. 909: 5'- TTTCTGGCCGGGTACCGTCA
SEQ ID No. 910: 5'- GGGAAGGCCCTGTCTCCAGG
10 SEQ ID No. 911: 5'- CGAAGGGGAAGGCCCTGTCT
SEQ ID No. 912: 5'- CCGAAGGGGAAGGCCCTGTC
SEQ ID No. 913: 5'- GAAGGGGAAGGCCCTGTCTC
SEQ ID No. 914: 5'- GGCGCCGCCCTGTTCGAACG
SEQ ID No. 915: 5'- AGGCGCCGCCCTGTTCGAAC
15 SEQ ID No. 916: 5'- AAGGCGCCGCCCTGTTCGAA
SEQ ID No. 917: 5'- CCCGGCAACAGAGTTTTACG
SEQ ID No. 918: 5'- CCCC GGCAACAGAGTTTTAC
SEQ ID No. 919: 5'- CCATCTGTAAGTGGCAGCCG
SEQ ID No. 920: 5'- TCTGTAAGTGGCAGCCGAAG
20 SEQ ID No. 921: 5'- CTGTAAGTGGCAGCCGAAGC
SEQ ID No. 922: 5'- CCCATCTGTAAGTGGCAGCC
SEQ ID No. 923: 5'- TGTAAGTGGCAGCCGAAGCC
SEQ ID No. 924: 5'- CATCTGTAAGTGGCAGCCGA
SEQ ID No. 925: 5'- ATCTGTAAGTGGCAGCCGAA
25 SEQ ID No. 926: 5'- CAGCCGAAGCCGCCTTTCCT
SEQ ID No. 927: 5'- GGCAACAGAGTTTTACGACC
SEQ ID No. 928: 5'- CCGGCAACAGAGTTTTACGA
SEQ ID No. 929: 5'- TTCCCCGGCAACAGAGTTTT
SEQ ID No. 930: 5'- CTTCCCCGGCAACAGAGTTT
30 SEQ ID No. 931: 5'- TCCCCGGCAACAGAGTTTTA

SEQ ID No. 932: 5'- CCGTCCGCCGCTAACCTTTT
SEQ ID No. 933: 5'- CTTCTCCGACTTACGCCGG
SEQ ID No. 934: 5'- CCTCCGACTTACGCCGGCAG
SEQ ID No. 935: 5'- TTCCTCCGACTTACGCCGGC
5 SEQ ID No. 936: 5'- TCCTCCGACTTACGCCGGCA
SEQ ID No. 937: 5'- TCCGACTTACGCCGGCAGTC
SEQ ID No. 938: 5'- CCGACTTACGCCGGCAGTCA
SEQ ID No. 939: 5'- GCCTTCCTCCGACTTACGCC
SEQ ID No. 940: 5'- CCTTCCTCCGACTTACGCCG
10 SEQ ID No. 941: 5'- GCTCTCCCCGAGCAACAGAG
SEQ ID No. 942: 5'- CTCTCCCCGAGCAACAGAGC
SEQ ID No. 943: 5'- CGCTCTCCCCGAGCAACAGA
SEQ ID No. 944: 5'- CTCCGACTTACGCCGGCAGT
SEQ ID No. 945: 5'- TCTCCCCGAGCAACAGAGCT
15 SEQ ID No. 946: 5'- CGACTTACGCCGGCAGTCAC
SEQ ID No. 947: 5'- TCGGCACTGGGGTGTGTCCC
SEQ ID No. 948: 5'- GGC ACTGGGGTGTGTCCCCC
SEQ ID No. 949: 5'- CTGGGGTGTGTCCCCCAAC
SEQ ID No. 950: 5'- CACTGGGGTGTGTCCCCCA
20 SEQ ID No. 951: 5'- ACTGGGGTGTGTCCCCCAA
SEQ ID No. 952: 5'- GCACTGGGGTGTGTCCCCC
SEQ ID No. 953: 5'- TGGGGTGTGTCCCCCAACA
SEQ ID No. 954: 5'- CACTCCAGACTTGCTCGACC
SEQ ID No. 955: 5'- TCACTCCAGACTTGCTCGAC
25 SEQ ID No. 956: 5'- CGGCACTGGGGTGTGTCCCC
SEQ ID No. 957: 5'- CGCCTTCCTCCGACTTACGC
SEQ ID No. 958: 5'- CTCCCCGAGCAACAGAGCTT
SEQ ID No. 959: 5'- ACTCCAGACTTGCTCGACCG
SEQ ID No. 960: 5'- CCCATGCCGCTCTCCCCGAG
30 SEQ ID No. 961: 5'- CCATGCCGCTCTCCCCGAGC

SEQ ID No. 962: 5'- CCCCATGCCGCTCTCCCCGA
SEQ ID No. 963: 5'- TCACTCGGTACCGTCTCGCA
SEQ ID No. 964: 5'- CATGCCGCTCTCCCCGAGCA
SEQ ID No. 965: 5'- ATGCCGCTCTCCCCGAGCAA
5 SEQ ID No. 966: 5'- TTCGGCACTGGGGTGTGTCC
SEQ ID No. 967: 5'- TGCCGCTCTCCCCGAGCAAC
SEQ ID No. 968: 5'- TTCACTCCAGACTTGCTCGA
SEQ ID No. 969: 5'- CCCGCAAGAAGATGCCTCCT
SEQ ID No. 970: 5'- AGAAGATGCCTCCTCGCGGG
10 SEQ ID No. 971: 5'- AAGAAGATGCCTCCTCGCGG
SEQ ID No. 972: 5'- CGCAAGAAGATGCCTCCTCG
SEQ ID No. 973: 5'- AAGATGCCTCCTCGCGGGCG
SEQ ID No. 974: 5'- CCGCAAGAAGATGCCTCCTC
SEQ ID No. 975: 5'- GAAGATGCCTCCTCGCGGGC
15 SEQ ID No. 976: 5'- CCCC GCAAGAAGATGCCTCC
SEQ ID No. 977: 5'- CAAGAAGATGCCTCCTCGCG
SEQ ID No. 978: 5'- TCCTTCGGCACTGGGGTGTG
SEQ ID No. 979: 5'- CCGCTCTCCCCGAGCAACAG
SEQ ID No. 980: 5'- TGCCTCCTCGCGGGCGTATC
20 SEQ ID No. 981: 5'- GACTTACGCCGGCAGTCACC
SEQ ID No. 982: 5'- GGCTCCTCTCTCAGCGGGCC
SEQ ID No. 983: 5'- CCTTCGGCACTGGGGTGTGT
SEQ ID No. 984: 5'- GGGGTGTGTCCCCCAACAC
SEQ ID No. 985: 5'- GCCGCTCTCCCCGAGCAACA
25 SEQ ID No. 986: 5'- AGATGCCTCCTCGCGGGCGT
SEQ ID No. 987: 5'- CACTCGGTACCGTCTCGCAT
SEQ ID No. 988: 5'- CTCACTCGGTACCGTCTCGC
SEQ ID No. 989: 5'- GCAAGAAGATGCCTCCTCGC
SEQ ID No. 990: 5'- CTCCAGACTTGCTCGACCGC
30 SEQ ID No. 991: 5'- TTACGCCGGCAGTCACCTGT

SEQ ID No. 992: 5'- CTTCGGCACTGGGGTGTGTC
SEQ ID No. 993: 5'- CTCGCGGGCGTATCCGGCAT
SEQ ID No. 994: 5'- GCCTCCTCGCGGGCGTATCC
SEQ ID No. 995: 5'- ACTCGGTACCGTCTCGCATG
5 SEQ ID No. 996: 5'- GATGCCTCCTCGCGGGCGTA
SEQ ID No. 997: 5'- GGGTGTGTCCCCCAACACC
SEQ ID No. 998: 5'- ACTTACGCCGGCAGTCACCT
SEQ ID No. 999: 5'- CTTACGCCGGCAGTCACCTG
SEQ ID No. 1000: 5'- ATGCCTCCTCGCGGGCGTAT
10 SEQ ID No. 1001: 5'- GCGCCGCGGGCTCCTCTCTC
SEQ ID No. 1002: 5'- GGTGTGTCCCCCAACACCT
SEQ ID No. 1003: 5'- GTGTGTCCCCCAACACCTA
SEQ ID No. 1004: 5'- CCTCGCGGGCGTATCCGGCA
SEQ ID No. 1005: 5'- CCTCACTCGGTACCGTCTCG
15 SEQ ID No. 1006: 5'- TCCTCACTCGGTACCGTCTC
SEQ ID No. 1007: 5'- TCGCGGGCGTATCCGGCATT
SEQ ID No. 1008: 5'- TTCACTCCAGACTTGCTCG
SEQ ID No. 1009: 5'- TACGCCGGCAGTCACCTGTG
SEQ ID No. 1010: 5'- TCCAGACTTGCTCGACCGCC
20 SEQ ID No. 1011: 5'- CTCGGTACCGTCTCGCATGG
SEQ ID No. 1012: 5'- CGCGGGCGTATCCGGCATT
SEQ ID No. 1013: 5'- GCGTATCCGGCATTAGCGCC
SEQ ID No. 1014: 5'- GGGCTCCTCTCTCAGCGGCC
SEQ ID No. 1015: 5'- TCCCCGAGCAACAGAGCTTT
25 SEQ ID No. 1016: 5'- CCCCAGAGCAACAGAGCTTTA
SEQ ID No. 1017: 5'- CCGAGCAACAGAGCTTTACA
SEQ ID No. 1018: 5'- CCATCCCATGGTTGAGCCAT
SEQ ID No. 1019: 5'- GTGTCCCCCAACACCTAGC
SEQ ID No. 1020: 5'- GCGGGCGTATCCGGCATTAG
30 SEQ ID No. 1021: 5'- CGAGCGGCTTTTTGGGTTTC

SEQ ID No. 1022: 5'- CTTTCACTCCAGACTTGCTC
SEQ ID No. 1023: 5'- TTCCTTCGGCACTGGGGTGT
SEQ ID No. 1024: 5'- CCGCCTTCCTCCGACTTACG
SEQ ID No. 1025: 5'- CCCGCCTTCCTCCGACTTAC
5 SEQ ID No. 1026: 5'- CCTCCTCGCGGGCGTATCCG
SEQ ID No. 1027: 5'- TCCTCGCGGGCGTATCCGGC
SEQ ID No. 1028: 5'- CATTAGCGCCCGTTTCCGGG
SEQ ID No. 1029: 5'- GCATTAGCGCCCGTTTCCGG
SEQ ID No. 1030: 5'- GGCATTAGCGCCCGTTTCCG
10 SEQ ID No. 1031: 5'- GTCTCGCATGGGGCTTTCCA
SEQ ID No. 1032: 5'- GCCATGGACTTTCACTCCAG
SEQ ID No. 1033: 5'- CATGGACTTTCACTCCAGAC
SEQ ID No. 1037: 5'- ACCGTCTCACAAGGAGCTTT
SEQ ID No. 1038: 5'- TACCGTCTCACAAGGAGCTT
15 SEQ ID No. 1039: 5'- GTACCGTCTCACAAGGAGCT
SEQ ID No. 1040: 5'- GCCTACCCGTGTATTATCCG
SEQ ID No. 1041: 5'- CCGTCTCACAAGGAGCTTTC
SEQ ID No. 1042: 5'- CTACCCGTGTATTATCCGGC
SEQ ID No. 1043: 5'- GGTACCGTCTCACAAGGAGC
20 SEQ ID No. 1044: 5'- CGTCTCACAAGGAGCTTTCC
SEQ ID No. 1045: 5'- TCTCACAAGGAGCTTTCCAC
SEQ ID No. 1046: 5'- TACCCGTGTATTATCCGGCA
SEQ ID No. 1047: 5'- GTCTCACAAGGAGCTTTCCA
SEQ ID No. 1048: 5'- ACCCGTGTATTATCCGGCAT
25 SEQ ID No. 1049: 5'- CTCGGTACCGTCTCACAAGG
SEQ ID No. 1050: 5'- CGGTACCGTCTCACAAGGAG
SEQ ID No. 1051: 5'- ACTCGGTACCGTCTCACAAG
SEQ ID No. 1052: 5'- CGGCTGGCTCCATAACGGTT
SEQ ID No. 1053: 5'- ACAAGTAGATGCCTACCCGT
30 SEQ ID No. 1054: 5'- TGGCTCCATAACGGTTACCT

SEQ ID No. 1055: 5'- CAAGTAGATGCCTACCCGTG
SEQ ID No. 1056: 5'- CACAAGTAGATGCCTACCCG
SEQ ID No. 1057: 5'- GGCTCCATAACGGTTACCTC
SEQ ID No. 1058: 5'- ACACAAGTAGATGCCTACCC
5 SEQ ID No. 1059: 5'- CTGGCTCCATAACGGTTACC
SEQ ID No. 1060: 5'- GCTGGCTCCATAACGGTTAC
SEQ ID No. 1061: 5'- GGCTGGCTCCATAACGGTTA
SEQ ID No. 1062: 5'- GCTCCATAACGGTTACCTCA
SEQ ID No. 1063: 5'- AAGTAGATGCCTACCCGTGT
10 SEQ ID No. 1064: 5'- CTCCATAACGGTTACCTCAC
SEQ ID No. 1065: 5'- TGCCTACCCGTGTATTATCC
SEQ ID No. 1066: 5'- TCGGTACCGTCTCACAAGGA
SEQ ID No. 1067: 5'- CTCACAAGGAGCTTTCCACT
SEQ ID No. 1068: 5'- GTAGATGCCTACCCGTGTAT
15 SEQ ID No. 1069: 5'- CCTACCCGTGTATTATCCGG
SEQ ID No. 1070: 5'- CACTCGGTACCGTCTCACAA
SEQ ID No. 1071: 5'- CTCAGCGATGCAGTTGCATC
SEQ ID No. 1072: 5'- AGTAGATGCCTACCCGTGTA
SEQ ID No. 1073: 5'- GCGGCTGGCTCCATAACGGT
20 SEQ ID No. 1074: 5'- CCAAAGCAATCCCAAGGTTG
SEQ ID No. 1075: 5'- TCCATAACGGTTACCTCACC
SEQ ID No. 1076: 5'- CCCGTGTATTATCCGGCATT
SEQ ID No. 1077: 5'- TCTCAGCGATGCAGTTGCAT
SEQ ID No. 1078: 5'- CCATAACGGTTACCTCACCG
25 SEQ ID No. 1079: 5'- TCAGCGATGCAGTTGCATCT
SEQ ID No. 1080: 5'- GGCGGCTGGCTCCATAACGG
SEQ ID No. 1081: 5'- AAGCAATCCCAAGGTTGAGC
SEQ ID No. 1082: 5'- TCACTCGGTACCGTCTCACA
SEQ ID No. 1083: 5'- CCGAGTGTTATTCCAGTCTG
30 SEQ ID No. 1084: 5'- CACAAGGAGCTTTCCACTCT

SEQ ID No. 1085: 5'- ACAAGGAGCTTTCCACTCTC
SEQ ID No. 1086: 5'- TCACAAGGAGCTTTCCACTC
SEQ ID No. 1087: 5'- CAGCGATGCAGTTGCATCTT
SEQ ID No. 1088: 5'- CAAGGAGCTTTCCACTCTCC
5 SEQ ID No. 1089: 5'- CCAGTCTGAAAGGCAGATTG
SEQ ID No. 1090: 5'- CAGTCTGAAAGGCAGATTGC
SEQ ID No. 1091: 5'- CGGCGGCTGGCTCCATAACG
SEQ ID No. 1092: 5'- CCTCTCTCAGCGATGCAGTT
SEQ ID No. 1093: 5'- CTCTCTCAGCGATGCAGTTG
10 SEQ ID No. 1094: 5'- TCTCTCAGCGATGCAGTTGC
SEQ ID No. 1095: 5'- CTCTCAGCGATGCAGTTGCA
SEQ ID No. 1096: 5'- CAATCCCAAGGTTGAGCCTT
SEQ ID No. 1097: 5'- AATCCCAAGGTTGAGCCTTG
SEQ ID No. 1098: 5'- AGCAATCCCAAGGTTGAGCC
15 SEQ ID No. 1099: 5'- CTCACTCGGTACCGTCTCAC
SEQ ID No. 1100: 5'- GCAATCCCAAGGTTGAGCCT
SEQ ID No. 1101: 5'- GCCTTGGACTTTCACTTCAG
SEQ ID No. 1102: 5'- CATAACGGTTACCTCACCGA
SEQ ID No. 1103: 5'- CTCCTCTCTCAGCGATGCAG
20 SEQ ID No. 1104: 5'- TCGGCGGCTGGCTCCATAAC
SEQ ID No. 1105: 5'- AGTCTGAAAGGCAGATTGCC
SEQ ID No. 1106: 5'- TCCTCTCTCAGCGATGCAGT
SEQ ID No. 1107: 5'- CCAAGGTTGAGCCTTGGAC
SEQ ID No. 1108: 5'- ATAACGGTTACCTCACCGAC
25 SEQ ID No. 1109: 5'- TCCAAGGTTGAGCCTTGGA
SEQ ID No. 1110: 5'- ATTATCCGGCATTAGCACCC
SEQ ID No. 1111: 5'- CTACGTGCTGGTAACACAGA
SEQ ID No. 1112: 5'- GCCGCTAGCCCCGAAGGGCT
SEQ ID No. 1113: 5'- CTAGCCCCGAAGGGCTCGCT
30 SEQ ID No. 1114: 5'- CGCTAGCCCCGAAGGGCTCG

SEQ ID No. 1115: 5'- AGCCCCGAAGGGCTCGCTCG
SEQ ID No. 1116: 5'- CCGCTAGCCCCGAAGGGCTC
SEQ ID No. 1117: 5'- TAGCCCCGAAGGGCTCGCTC
SEQ ID No. 1118: 5'- GCTAGCCCCGAAGGGCTCGC
5 SEQ ID No. 1119: 5'- GCCCCGAAGGGCTCGCTCGA
SEQ ID No. 1120: 5'- ATCCCAAGGTTGAGCCTTGG
SEQ ID No. 1121: 5'- GAGCCTTGGACTTTCACTTC
SEQ ID No. 1122: 5'- CAAGGTTGAGCCTTGGACTT
SEQ ID No. 1123: 5'- GAGCTTTCCACTCTCCTTGT
10 SEQ ID No. 1124: 5'- CCAAGGTTGAGCCTTGGACT
SEQ ID No. 1125: 5'- CGGGCTCCTCTCTCAGCGAT
SEQ ID No. 1126: 5'- GGAGCTTTCCACTCTCCTTG
SEQ ID No. 1127: 5'- GGGCTCCTCTCTCAGCGATG
SEQ ID No. 1128: 5'- TCTCCTTGTCGCTCTCCCCG
15 SEQ ID No. 1129: 5'- TCCTTGTCGCTCTCCCCGAG
SEQ ID No. 1130: 5'- AGCTTTCCACTCTCCTTGTC
SEQ ID No. 1131: 5'- CCACTCTCCTTGTCGCTCTC
SEQ ID No. 1132: 5'- GGCTCCTCTCTCAGCGATGC
SEQ ID No. 1133: 5'- CCTTGTCGCTCTCCCCGAGC
20 SEQ ID No. 1134: 5'- CACTCTCCTTGTCGCTCTCC
SEQ ID No. 1135: 5'- ACTCTCCTTGTCGCTCTCCC
SEQ ID No. 1136: 5'- CTCTCCTTGTCGCTCTCCCC
SEQ ID No. 1137: 5'- GCGGGCTCCTCTCTCAGCGA
SEQ ID No. 1138: 5'- GGCTCCATCATGGTTACCTC
25 SEQ ID No. 1142: 5'- CTTCCCTCCGGCTTGCGCCGG
SEQ ID No. 1143: 5'- CGCTCTTCCCGA(G/T)TGACTGA
SEQ ID No. 1144: 5'- CCTCGGGCTCCTCCATC(A/T)GC

2. The method according to claim 1, wherein drink-spoiling microorganisms belonging to the genus *Zygosacchaeromyces* are detected with oligonucleotide probe SEQ ID No. 1.

5 3. The method according to claim 1, wherein the drink-spoiling microorganism *Zygosacchaeromyces bailii* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 5 to SEQ ID No. 21.

10 4. The method according to claim 1, wherein the drink-spoiling microorganism *Zygosacchaeromyces fermentati* is detected with oligonucleotide probe SEQ ID No. 22.

15 5. The method according to claim 1, wherein the drink-spoiling microorganism *Zygosacchaeromyces microellipsoides* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 23 to SEQ ID No. 24.

20 6. The method according to claim 1, wherein the drink-spoiling microorganism *Zygosacchaeromyces mellis* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 25 to SEQ ID No. 75.

25 7. The method according to claim 1, wherein the drink-spoiling microorganism *Zygosacchaeromyces rouxii* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 76 to SEQ ID No. 126.

8. The method according to claim 1, wherein the drink-spoiling microorganisms *Zygosacchaeromyces mellis* and *Zygosacchaeromyces rouxii* are detected simultaneously with oligonucleotide probe SEQ ID No. 127.

5 9. The method according to claim 1, wherein the drink-spoiling microorganism *Zygosacchaeromyces bisporus* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 128 to SEQ ID No. 142.

10 10. The method according to claim 1, wherein the drink-spoiling microorganism *Hanseniaspora uvarum* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 143 to SEQ ID No. 144.

15 11. The method according to claim 1, wherein the drink-spoiling microorganism *Candida intermedia* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 145 to SEQ ID No. 146.

20 12. The method according to claim 1, wherein the drink-spoiling microorganism *Candida parapsilosis* is detected with oligonucleotide probe SEQ ID No. 148.

25 13. The method according to claim 1, wherein the drink-spoiling microorganism *Candida crusei* (*Issatchenkia orientalis*) is detected with oligonucleotide probe SEQ ID No. 149.

 14. The method according to claim 1, wherein the drink-spoiling microorganisms *Brettanomyces* (*Dekkera*) *anomala* and *Dekkera bruxellensis* are detected simultaneously with oligonucleotide probe SEQ ID No. 150.

15. The method according to claim 1, wherein the drink-spoiling microorganism *Brettanomyces (Dekkera) bruxellensis* is detected with oligonucleotide probe SEQ ID No. 151.

5 16. The method according to claim 1, wherein the drink-spoiling microorganism *Brettanomyces (Dekkera) naardenensis* is detected with oligonucleotide probe SEQ ID No. 152.

10 17. The method according to claim 1, wherein the drink-spoiling microorganism *Pichia membranaefaciens* is detected with oligonucleotide probe SEQ ID No. 153.

15 18. The method according to claim 1, wherein the drink-spoiling microorganisms *Pichia minuta* and *Pichia anomala* are detected simultaneously with oligonucleotide probe SEQ ID No. 154.

19. The method according to claim 1, wherein the drink-spoiling microorganism *Saccharomyces exiguus* is detected with oligonucleotide probe SEQ ID No. 157.

20

20. The method according to claim 1, wherein the drink-spoiling microorganism *Saccharomycodes ludwigii* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 158 to SEQ ID No. 159.

25

21. The method according to claim 1, wherein the drink-spoiling microorganism *Saccharomyces cerevisiae* is detected with oligonucleotide probe SEQ ID No. 160.

22. The method according to claim 1, wherein the drink-spoiling microorganism *Mucor racemosus* is detected with oligonucleotide probe SEQ ID No. 163.

5 23. The method according to claim 1, wherein the drink-spoiling microorganism *Byssoschlamys nivea* is detected with oligonucleotide probe SEQ ID No. 164.

24. The method according to claim 1, wherein the drink-spoiling
10 microorganism *Neosartorya fischeri* is detected with oligonucleotide probe SEQ ID No. 165.

25. The method according to claim 1, wherein the drink-spoiling microorganisms *Aspergillus fumigatus* and *A. fischeri* are detected simultaneously
15 with oligonucleotide probe SEQ ID No. 166.

26. The method according to claim 1, wherein the drink-spoiling microorganism *Talaromyces flavus* is detected with oligonucleotide probe SEQ ID
20 No. 167.

27. The method according to claim 1, wherein the drink-spoiling microorganisms *Talaromyces bacillisporus* and *T. flavus* are detected simultaneously
with oligonucleotide probe SEQ ID No. 168.

25 28. The method according to claim 1, wherein the drink-spoiling microorganism *Lactobacillus collinoides* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 169 to SEQ ID No. 269.

29. The method according to claim 1, wherein drink-spoiling microorganisms of the genus *Leuconostoc* are detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 270 to SEQ ID No. 271.

5 30. The method according to claim 1, wherein the drink-spoiling microorganisms *Leuconostoc mesenteroides* and *L. pseudomesenteroides* are detected simultaneously with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 272 to SEQ ID No. 301.

10 31. The method according to claim 1, wherein the drink-spoiling microorganism *Leuconostoc pseudomesenteroides* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 302 to SEQ ID No. 341.

15 32. The method according to claim 1, wherein the drink-spoiling microorganism *Oenococcus oenis* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 342 to SEQ ID No. 444.

20 33. The method according to claim 1, wherein drink-spoiling microorganisms of the genus *Weissella* are detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 445 to SEQ ID No. 495.

25 34. The method according to claim 1, wherein drink-spoiling microorganisms of the genus *Lactococcus* are detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 496 to SEQ ID No. 546.

30 35. The method according to claim 1, wherein drink-spoiling microorganisms of the genera *Acetobacter* and *Gluconobacter* are detected simultaneously with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 547 to SEQ ID No. 608.

36. The method according to claim 1, wherein drink-spoiling microorganisms of the genera *Acetobacter*, *Gluconobacter* and *Gluconoacetobacter* are detected simultaneously with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 609 to SEQ ID No. 842.

37. The method according to claim 1, wherein the drink-spoiling microorganism *Bacillus coagulans* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 843 to SEQ ID No. 932.

38. The method according to claim 1, wherein drink-spoiling microorganisms of the genus *Alicyclobacillus* are detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 933 to SEQ ID No. 1033.

39. The method according to claim 1, wherein the drink-spoiling microorganism *Alicyclobacillus acidoterrestris* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 1037 to SEQ ID No. 1138.

40. The method according to claim 1, wherein the drink-spoiling microorganisms *Alicyclobacillus cycloheptanicus* and *A. herbarius* are detected simultaneously with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 1142 to SEQ ID No. 1144.

41. The method according to claim 2, characterised in that the at least one oligonucleotide probe is used in combination with one or more competitor probes.

42. The method according to claim 41, characterised in that the oligonucleotide probe SEQ ID No. 1 is used in combination with one or more

competitor probes selected from the group consisting of SEQ ID No. 2 to SEQ ID No. 4.

43. The method according to claim 11, characterised in that the at least one
5 oligonucleotide probe is used in combination with one or more competitor probes.

44. The method according to claim 43, characterised in that the
oligonucleotide probe SEQ ID No. 146 is used in combination with competitor probe
SEQ ID No. 147.

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45. The method according to claim 18, characterised in that the at least one
oligonucleotide probe is used in combination with one or more competitor probes.

46. The method according to claim 45, characterised in that the
15 oligonucleotide probe SEQ ID No. 154 is used in combination with one or more
competitor probes selected from the group consisting of SEQ ID No. 155 to SEQ ID
No. 156.

47. The method according to claim 21, characterised in that the at least one
20 oligonucleotide probe is used in combination with one or more competitor probes.

48. The method according to claim 47, characterised in that the
oligonucleotide probe SEQ ID No. 160 is used in combination with one or more
competitor probes selected from the group consisting of SEQ ID No. 161 to SEQ ID
25 No. 162.

49. The method according to claim 38, characterised in that the at least one
oligonucleotide probe is used in combination with one or more competitor probes.

50. The method according to claim 49, characterised in that the oligonucleotide probe SEQ ID No. 933 is used in combination with one or more competitor probes selected from the group consisting of SEQ ID No. 1034 to SEQ ID No. 1036.

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51. The method according to claim 39, characterised in that the at least one oligonucleotide probe is used in combination with one or more competitor probes.

52. The method according to claim 51, characterised in that the oligonucleotide probe SEQ ID No. 1044 is used in combination with the competitor probe SEQ ID No. 1139.

53. The method according to claim 51, characterised in that the oligonucleotide probe SEQ ID No. 1057 is used in combination with one or more competitor probes selected from the group consisting of SEQ ID No. 1140 to SEQ ID No. 1141.

54. The method according to any of claims 1 to 53, characterized in by comprising the following steps:

- 20 a) cultivating the drink-spoiling microorganisms contained in the sample,
- b) fixing the drink-spoiling microorganisms contained in the sample,
- c) incubating the fixed microorganisms with at least one oligonucleotide probe optionally in combination with a competitor probe,
- d) removing non-hybridised oligonucleotide probes,
- 25 e) detecting and visualizing and optionally quantifying the drink-spoiling microorganisms with the hybridized oligonucleotide probes.

55. The method according to any of claims 1 to 54, characterized in that the sample is a sample from non-alcoholic beverages.

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56. A kit for performing a method according to any of claims 1 to 55, containing at least one oligonucleotide according to claim 1.